MODERN CLASSICAL PHILOSOPHERS

SELECTIONS
ILLUSTRATING MODERN PHILOSOPHY
FROM BRUNO TO BERGSON

COMPILED BY
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Second and Enlarged Edition



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PREFACE TO THE SECOND EDITION

The purpose of the new and enlarged edition of The Modern Classical Philosophers is to bring down the survey in this work of the more important philosophical systems to the present time. Chapters have therefore been added in it from the writings of six of the foremost philosophers since Spencer. These include Lotze, Renouvier, Bradley, Royce, James and Bergson.

Lotze's teleological idealism is presented by selections from his "Microcosmus," which set forth the presence of an infinite being immanent in all things as necessary to give universal laws to nature. From the "Essays of General Criticism" of Renouvier, the founder of French neo-criticism, those parts have been translated for the first time which give his general analysis of knowledge, the fundamental law of relation, and the cardinal doctrine of certitude. There is reproduced from Bradley's "Appearance and Reality" the constructive statement of his philosophy, wherein the absolute is described as the unity in which all appearances are transmuted with varying degrees of truth and reality. In a chapter from Royce's "Spirit of Modern Philosophy" an eloquent expression of his idealism is given, in which truth and error alike presuppose our inclusion in a larger self or Logos. James, the brilliant expounder of the pragmatic doctrine first suggested by Charles Peirce, tells in a chapter from his "Pragmatism," what pragmatism means. From Bergson's "Creative Evolution" selections have been made which present the original impetus of life, the evolutionary process, and the meaning of evolution.

The names of the publishers to whom is due the courtesy to reprint these additional selections will be found, as those of the first edition, at the beginning of the respective chapters.

The value of this new edition has been much increased by the advice of Prof. William Ernest Hocking and the assistance of Mr. John Gilbert Beebe-Center.

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PREFACE TO THE FIRST EDITION

"MODERN CLASSICAL PHILOSOPHERS" aims to present in a series of extracts some of the essential features of the chief philosophical systems produced by the great philosophers from Bruno to Spencer. The book is virtually a history of modern philosophy based not upon the customary description of systems, but upon selections from original texts, and upon translations of the authors themselves. The attempt has been made to apply the case system, which has proved so successful in the teaching of law, to philosophical instruction. In this respect the work follows the model of the author's earlier publication in Economic History, which was printed as a text book of required reading to accompany courses of lectures given on that subject in different universities. It is likewise hoped to provide the general reader with a volume from which he may readily discover the content and method of the great philosophical masters of the modern period.

Beginning with Bruno, the philosophical martyr, the dialogue which appears in this work is one in which the author describes the unity and divine immanence in all things in the universe, thereby anticipating the doctrine of Spinoza. From Bacon has been selected an account of "the idols" or false notions which hinder men from a right pursuit of scientific research, and of the theory of induction by which they may advance in a true interpretation of nature. The passages from Hobbes contain his doctrine of the natural state of man as one of war, and of the necessity of "that great Leviathan," whereby peace and order may be established in the political commonwealth. Of Descartes, a part of the "Discourse on Method" is printed first, since it contains his intellectual autobiography and his peculiar principles of method for the attainment of truth; a transition is then made to his "Meditations on First Philosophy," to set forth the application of his method of doubt to the discovery of absolute certainty, and also his attempt to demonstrate the

existence of God. From "The Ethics" of Spinoza are given the doctrines of his one eternal substance as the immanent cause of the universe, of his three kinds of cognition, and of his intellectual love of God. The "Monadology" of Leibnitz is reproduced in full. Of Locke, will be found the refutation of the existence of innate ideas and principles, illustrative chapters tracing the sources of all our knowledge to sensation and reflection, and a statement of the resultant extent and reality of human knowledge. Berkeley's idealism, it was believed, could be better learned by reproducing at some length his "Principles of Human Knowledge" than by numerous extracts from his various other writings. The philosophical significance of Hume in this work is based on his doctrine that causality owes its origin to habit, and on the consequent scepticism due to the limitation of the causal idea to the realm of experience. The French philosophy of the eighteenth century finds here its representative in Condillac, whose work on the "Treatise of Sensations" contains the noted description of the endowment of a marble statue with the different senses of man in succession. Since the critical philosophy of Kant may appropriately be regarded as the high-water mark of modern philosophy, an effort has been made to give an extended outline of his system through selections as drawn from the "Critique of Pure Reason" and the "Critique of Practical Reason." By extracts from some of their most important treatises, Fichte's subjective idealism, Schelling's objective idealism, and Hegel's absolute idealism, are set forth with sufficient clearness, it is believed, to enable the student to gain some just appreciation of these great doctrines. A section on "Faith" from the "Vocation of Man" by Fichte, and a chapter on "The Contrite Consciousness" from the "Phenomenology" of Hegel, may serve to illustrate the noble and inspiring thought to be found in German philosophy apart from its system-building. The spirited writing of Schopenhauer, with its deep keynote of pessimism, and its fine exaltation of art, is taken from his principal work on "The World as Will and Idea." From Comte, the founder of Positivism, has been chosen the chapter in which he expounds the nature and importance of the positive

philosophy. Possibly Mill may not be regarded by many as strictly in the rank of classical philosophers, but it must be admitted by all that the theory, here reproduced, of the belief in matter as dependent upon the permanent possibilities of sensations constitutes a classical chapter in the history of modern philosophy. Spencer's doctrine of "The Unknowable" is very briefly presented in harmony with his apparent intention of merely paving the way for an exposition of "The Knowable." With the statement of this philosophy of the knowable and with Spencer's far-reaching law of evolution, this volume concludes.

In the selections of modern philosophy, as traced in the foregoing paragraph, which are to be found in this book, certain shortcomings due to the nature of the task are inevitable. No two authorities will entirely agree as to the authors to be chosen. Limitations as to the length of the work must exclude important passages in the authors admitted. Although a proper balance among the different writers is most desirable, yet the task must be finished before a complete survey of their proper relations can be correctly made. The book will, therefore, best realize its final purpose if it shall prove a stimulus to the student for the perusal of the complete works of the classical philosophers represented in this volume.

The original texts reproduced in this book either have been printed directly from the best available editions, or have been carefully compared with them. Omissions from the various texts are shown throughout by the retention of the numbers accompanying the original chapters and paragraphs, and by the use of dots when these numbers do not suffice. Footnotes of the editor are indicated by signs, those of the authors or translators by numerals. Among the translations included in the volume those from the writings of Bruno by Mrs. Josiah Royce and Professor Royce, of Condillac by Professor F. C. de Sumichrast, of Fichte and Schelling by the editor, and of Hegel by Professor Royce appear here for the first time. Concerning the other translations which have previously been published, Descartes' "Method" and "Meditations" by J. Veitch, Spinoza's 'Ethics," by R. H. M. Elwes, Kant's "Critique of Pure Reason,"

by F. Max Müller and his "Critique of Practical Reason" by T. K. Abbott, Fichte's "Science of Knowledge" by A. E. Kroeger and his "Vocation of Man" by Wm. Smith, Hegel's "Logic" by Wm. Wallace, Schopenhauer's "World as Will and Idea," by R. B. Haldane and J. Kemp, and Comte's "Positive Philosophy," by Harriet Martineau, may fairly be said to have translators almost as classical for the English readers of these volumes as the original authors themselves. "Selections from Kant," also, by Professor John Watson, from which, with his kind permission, extracts have been here reproduced, is possibly unexcelled among philosophical translations for combined accuracy and literary skill.

This work was first planned more than a decade ago on the publication of the several editions of the author's "Selections illustrating Economic History;" but its final preparation has been delayed by the years of labor required for his "Life, Letters, and Philosophical Regimen of the Third Earl of Shaftesbury" and his comprehensive "Bibliography of Philosophy." Its resumption has on several occasions been urged by Professor William James, owing to the success of the "Economic History" in meeting a real need among students. His obligations in the completion of the work at the present time are of a varied character. His thanks are first due to the publishers of several philosophical books for the courtesy of their permission to reprint the selections which constitute a number of the chapters in this volume. The names of these publishers will be found at the beginning of the respective chapters, accompanying the titles of their published works. Valuable suggestions have also been received from Professors Watson, James, Santayana, and Calkins, the Rev. Dr. A. W. H. Eaton, and Mr. H. M. Sheffer. Especially, however, does the author wish to express his gratitude for the constant philosophical advice of Professor Josiah Royce, for the revision of his translation of Schelling by Dr. Edmund von Mach, and for the assistance in the preparation of the text by his brother, Mr. Frederic C. Rand.

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MODERN CLASSICAL PHILOSOPHERS

GIORDANO BRUNO
(1548–1600)

CONCERNING THE CAUSE, THE PRINCIPLE, AND THE ONE

Translated from the Italian by*
JOSIAH ROYCE and KATHARINE ROYCE

SECOND DIALOGUE[1]

PERSONAGES: AURELIUS DIXON, THEOPHILUS, GERVASIUS, POLYHYMNIUS

Dixon. Have the kindness, Master Polyhymnius, and you too, Gervasius, not to interrupt our discourse further.

Polyhymnius. So be it.

Gervasius. If he who is the master speaks, surely I shall be unable to keep silence.

Dix. Then you say, Theophilus, that everything which is not a first principle and a first cause, has such a principle and such a cause?

Theophilus. Without doubt and without the least controversy.

Dix. Do you believe, accordingly, that whoever knows the

* From *Della causa, principio, ed uno.* Venet. [or London], 1584.

[1] The dialogues which constitute this work, *Della causa*, etc., are the product of an effort to state a thought which Bruno felt to be his own, under the limitations of language imposed by the current scholastic terminology, and especially by the traditional Aristotelian distinctions of form and matter, of final and efficient cause, of *potentia*, or possibility, of *actus*, or actuality, etc. These distinctions ought to be in the student's mind as he reads the dialogue. But the historical phraseology is in general rather an encumbrance than an aid

things thus caused and originated must know the ultimate cause and principle?

Theo. Not easily the proximate cause or the proximate principle; it would be extremely difficult to recognize even the traces of an ultimate cause and creative principle.

Dix. Then how do you think that those things which have a first and a proximate cause and principle can be really known, if their efficient cause (which is one of the things which contribute to the true cognition of things) is hidden?

Theo. I grant you that it is easy to set forth the theory of proof, but the proof itself is difficult. It is very practicable to set forth the causes, circumstances, and methods of sciences; but afterward our method-makers and analytical scholars can use but awkwardly their *organum*, the principles of their methods, and their arts of arts.

Gerv. Like those who know how to make fine swords, but do not know how to use them.

Poly. Aye, aye.[1]

Gerv. May your eyes be closed so that you may never be able to open them.

Theo. I should say, then, that one should not expect the natural

to Bruno. The central thought of the dialogue does not lie, again, in that distinction between Cause and Principle which Bruno here advances as his own. Rather is the unity of the universal world-form, and of the world-soul, the central topic. While this doctrine of the unity of all things, and of the immanence of the world-soul and of the world-form in every being, is expounded in this dialogue rather as an intuition than as a demonstrable assertion, Bruno here makes prominent, in one striking passage, a practical motive which in his own mind is central. The individual should learn so to view himself, and to feel himself as one with the World-Soul, that the individual is relieved from all fear of death. What is valuable about any being is that it expresses, in some accidental and possibly transient form, the one meaning which is equally expressed in the whole world and in every part. This meaning cannot perish, is divine, and is ill described by any such view of nature as Bruno attributes to the Peripatetics. Bruno's method in this dialogue of first insisting upon distinctions and divisions, and then showing that they are relative and of partial significance must also be borne in mind throughout. With this Dialogue likewise read chapter ii, part ii, of J. Lewis McIntyre's *Giordano Bruno*, London, 1903.

[1] In the original the play upon words occurs thus: —

Polinnio. Fermé!
Gervasius. Fermati te siano gl' occhi.

philosopher to make plain all causes and principles; but only the physical, and only the principal and most essential of these. And although these depend upon the first cause and first principle, and can be said to possess such a cause and principle, this is, in any case, not such a necessary relation that from the knowledge of the one the knowledge of the other would follow; and therefore one should not expect that in the same science both should be set forth.

Dix. How is that?

Theo. Because from the cognition of all dependent things, we are unable to infer other knowledge of first cause and principle, than by the somewhat inefficacious method of traces. All things are, indeed, derived from the Creator's will or goodness, which is the principle of His works, and from which proceeds the universal effect. The same consideration arises in the case of works of art, in so much as he who sees the statue does not see the sculptor; he who sees the portrait of Helen does not see Apelles: but he sees only the result of the work which comes from the merit and genius of Apelles. This work is entirely an effect of the accidents and circumstances of the substance of that man, who, as to his absolute essence, is not in the least known.

Dix. So that to know the universe is like knowing nothing of the being and substance of the first principle, because it is like knowing the accidents of the accidents.

Theo. Exactly, but I would not have you imagine that I mean that in God himself there are Accidents, or that He could be known, as it were, by His Accidents.

Dix. I do not attribute to you so crude a thought, and I know that it is one thing to say that the things extraneous to the divine nature are accidents, another thing to say that they are His Accidents, and yet another thing to say that they are, *as it were*, His Accidents: By the last way of speaking I believe you mean that they are the effects of the divine activity; but that these effects, in so far as they may be the substance of things, and even the natural substances themselves, in any case are, as it were, the remotest accidents whereby we merely touch an apprehension of the divine supernatural essence.

Theo. Well said.

Dix. Behold, then, of the divine substance, as well because it is infinite as because it is extremely remote from its effects (while these effects are the furthest boundary of the source of our reasoning faculties), we can know nothing, — unless through the means of traces, as the Platonists say, of remote effects, as the Peripatetic philosophers say, of the dress or outer covering, as say the Cabalists, of the mere shoulders and back, as the Talmudists say,[1] or of the mirror, the shadow, the enigma, as the Apocalyptic writers say.

Theo. All the more is this the case because we do not see perfectly this universe whose substance and principle are so difficult of comprehension. And thus it follows that with far less ground can we know the first principle and cause through its effect, than Apelles may be known through the statue he has made. For the statue all may see and examine, part by part; but not so the grand and infinite effect of the Divine Power. Therefore our simile should be understood not as a matter of close comparison.

Dix. Thus it is, and thus I understand it.

Theo. It would be well, then, to abstain from speaking of so lofty a matter.

Dix. I agree to that, because it suffices, morally and theologically, to know the first principle in so far as higher spirits have revealed it, and divine men have declared it. Beyond this point, not only whatever Law and Theology you will, but also all wise philosophy has held it as a profane and turbulent disposition, to rush into demanding reasons and definitions for such things as are above the sphere of our intelligence.

Theo. Very good: but these do not deserve blame so much as those deserve praise who struggle *towards* the knowledge of that cause and principle; who learn its grandeur as much as possible by allowing the eyes of their well-regulated minds to roam amongst yonder magnificent stars, — those luminous bodies which are so many habitable worlds, vast and animate, and are most excellent deities. These seem, and are, countless worlds

[1] Cf. Exodus xxxiii, 18–23.

not unlike that which contains us. It is impossible that these can have their existence of themselves, considering that they are composite and dissoluble (although not for that reason do they deserve annihilation, as has been well said in the Timæus). It is needful that they should know their principle and cause; and consequently with the grandeur of their existence, of their life and of their works, they show and set forth, in infinite space, with innumerable voices the infinite excellence and majesty of their first principle and cause.[1] Leaving then (as you say) those considerations in so far as they are superior to all sense and intellect, we will consider that principle and cause in so far as, in its traces, it either is identical with nature itself, or lies revealed to us in the extent and in the lap of nature. Question me, then, in order, if you wish me to answer you in order.

Dix. I will do so. But first, since you constantly speak of Cause and Principle, I should like to know whether those are used by you as synonymous words?

Theo. No.

Dix. Then what difference is there between the one and the other term?

Theo. I answer that when we speak of God as first principle and first cause, we mean one and the same thing but from different points of view; when we speak of principles and causes in Nature, we speak of different things from different points of view. We speak of God as the first principle inasmuch as all things come only after Him in an ordered rank of *before* and *after*, either according to their nature, or according to their duration, or according to their value. We call God the first cause, in so far as all things are distinct from Him, as the effect from the efficient, the thing produced from that which produced it. And these two points of view are different, because not everything which comes first and is of more value is the cause of that which comes later and is of less value; and not everything which is

[1] Cf. the well-known words of the hymn:

To reason's ear they all proclaim
The glories of their Maker's name,
Forever singing as they shine,
The Hand that made us is divine.

the cause is prior to and of more worth than that which is caused, as will be plain to him who reflects carefully.

Dix. Then tell me, in speaking of natural things, what is the difference between cause and principle?

Theo. Although at times the one term is used in place of the other, nevertheless, properly speaking, not everything which is a principle is a cause, because a point is the principle of a line, but it is not the cause of the line; the instant is the principle of temporal activity, the place whence is the principle of the motion, the premises are the principle of the argument, but they are not the cause. Therefore principle is a more general term than cause.

Dix. Then restricting these two terms to certain special significations, according to the custom of those who reform their terminology, I believe you to mean that Principle is that which intrinsically brings to pass the constitution of things, and which remains in what it has produced. Thus, for instance, matter and form remain in their composite; or again, the elements of which things have been composed, and into which they tend to resolve themselves again, are principles. You call Cause that which operates from without in the production of things, and which has its being outside of the things produced, as is the case with the efficient cause, and the end for which the thing produced is ordained.

Theo. Very good.

Dix. Since, then, we have come to an understanding concerning the difference between those things, I wish you to devote your attention first to the Causes and then to the Principles. And as to the Causes, I desire first to know about the first efficient cause, about the formal cause, which you say is conjoined to the efficient; and, lastly, about the final cause, which is understood to be the power which moves this.

Theo. The order of discourse which you propose pleases me much. Now as to the efficient cause: I assert that the universal physical efficient cause is the universal Intellect, which is the first and principal faculty of the world-soul and which is the universal form of the Cosmos.

Dix. Your thought appears to me to be not only in agreement with that of Empedocles, but more certain, more distinct, and more explicit, and also (in so far as I can see from the above) more profound: yet you will give me pleasure if you will explain the whole more in detail, beginning by informing me just what is that universal intellect.

Theo. The universal intellect is the most intimate, real, and essential faculty and effective part of the world-soul. This is one and the same thing which fills the whole, illumines the universe and directs nature to produce the various species as is fitting, and has the same relation to the production of natural things as our intellect to the parallel production of our general ideas.[1] This is called by the Pythagoreans the moving spirit and propelling power of the universe; as saith the poet, "Totamque infusa per artus, mens agitat molem, et toto se corpore miscet." [2] This is called by the Platonic philosophers the world-builder. This builder (they say) proceeds from the higher world (which is, in fact, one) to this world of sense, which is divided into many, and in which not only harmony but also discord reigns, because it is sundered into parts. This intellect, infusing and extending something of its own into matter, restful and moveless in itself, produces all things. By the Magi this intelligence is called most fruitful of seeds, or even the seed-sower, since it is He who impregnates matter with all its forms, and according to the type and condition of these succeeds in shaping, forming, and arranging all in such admirable order, as cannot be attributed to chance, or to any principle which cannot consciously distinguish or arrange. Orpheus calls this Intellect the eye of the world, because it sees all natural objects, both within and without, in order that all things may succeed in producing and maintaining themselves in their proper sym-

[1] The reference is to a well-known scholastic parallel of the universals present *in things* and the universals present *in our minds* when we form our ideas of natural classes. The universal Intellect is related to the production of natural forms, or species, as our mind is related to the production of our ideas of these species.

[2] Infused through the members, mind vitalizes the whole mass and is mingled with the whole body.

metry, not only intrinsically but also extrinsically. By Empedocles it is called the Distinguisher, since it never wearies of unfolding the confused forms within the breast of matter or of calling forth the birth of one thing from the corruption of another. Plotinus calls it the father and progenitor, because it distributes seeds throughout the field of nature, and is the proximate dispenser of forms. By us this Intellect is called the inner artificer, because it forms and shapes material objects from within, as from within the seed or the root is sent forth and unfolded the trunk, from within the trunk are put forth the branches, from within the branches the finished twigs, and from within the twigs unfurl the buds, and there within are woven like nerves, leaves, flowers and fruits; and inversely, at certain times the sap is recalled from the flowers and fruits to the twigs, from the twigs to the branches, from the branches to the trunk, and from the trunk to the root. Just so it is with animals; its work proceeding from the original seed, and from the centre of the heart, to the external members, and from these finally gathering back to the heart the unfolded powers, it behaves as if again knotting together spun-out threads. Now, since we believe that even inanimate works, such as we know how to produce with a certain order, imitatively working on the surface of matter, are not produced without forethought and mind, — as when, cutting and sculpturing a piece of wood, we bring forth the effigy of a horse: how much greater must we believe is that creative intelligence which, from the interior of the germinal matter, brings forth the bones, extends the cartilage, hollows out the arteries, breathes into the pores, weaves the fibres, forms the branching nerves, and with such admirable mastery arranges the whole? I say, how much greater an artificer is He who is not restricted to one sole part of the material world, but operates continually throughout the whole. There are three sorts of intelligence; the divine, which is all things, the mundane which makes all things, and the other kinds of spirits which become everything. For it is needful that between the extremes the means should be found, which is the true efficient cause, not so much extrinsic as even intrinsic, of all natural things.

Dix. I should like to see you distinguish, as you understand them, extrinsic cause and intrinsic cause.

Theo. I call a cause extrinsic when as an efficient it does not form a part of the things compounded and produced. I call a cause intrinsic in so far as it does not operate around and outside of objects, but in the manner just explained. Hence a cause is extrinsic by being distinct from the substance and essence of its effects, and therefore its existence is not like that of things that are generated and decay, although it embraces such things. A cause is intrinsic with respect to the actuality of its own workings.

Dix. It seems to me that you have talked enough about the efficient cause. Now I should like to know what sort of thing you take to be the formal cause joined to the efficient cause; is it perhaps the ideal ground? Because every agent that works according to the rule of intelligence will be unable to produce effects unless according to some intention, and that intention is not without the apprehension of something; and that is no other than the form of the thing to be produced. And thus also with that intellect which has the power to produce all species, and to send them forth with such beautiful construction from the potentiality of matter into actual existence, it must be that that intelligence fore-knows all, according to certain formal principles, without which it could not proceed to make these things, just as it is impossible for the sculptor to execute diverse statues without having first thought out diverse forms.

Theo. You understand this excellently well: since I desire that two sorts of form should be considered.[1] One which is the cause, not exactly the efficient cause, but that through which the efficient cause produces its effects. The other is the principle, which by the efficient is called forth from matter.

Dix. The aim, and the final cause for which the efficient is working, is the perfection of the universe, which implies that in

[1] The thought is that the intelligence is guided in each of its productions by the model which some ideal species sets before it — that is, by the form or ideal type of some class of objects. Meanwhile, the intellect is also guided by the great final cause, — the perfection of the universe. Thus two types of formal causes are distinguished, both from each other and from the efficient cause.

diverse portions of matter all forms are actually existent. In this end the intellect takes such great pleasure and delight that it never wearies of calling forth all sorts of forms from matter, as it appears that Empedocles also would have it.

Theo. Very well. Now I add to this that just as this efficient cause is omnipresent in the universe, and is special and particular in the parts and members thereof, just so its form and its purpose.

Dix. Now, enough has been said about causes; let us proceed to the discussion of principles.

Theo. In order, then, to get at the constitutive principles of things, I will next discuss form. For this is in some sort the same as the aforesaid efficient cause; since the intelligence which is a power of the world-soul has been called the proximate efficient cause of all natural things.

Dix. But how can the same subject be at once principle and cause of natural things? How can it have the definition of an intrinsic part instead of an extrinsic part?

Theo. I declare that this is not incongruous, considering that the soul is within the body as the pilot is within the ship. And the pilot, in so far as he shares the motion of the ship, is a part of it. Yet considered in so far as he guides and moves it, he is not regarded as a part, but as a distinct efficient cause. Just so the soul of the universe, in so far as it animates and informs things, is an intrinsic and formal part of that universe. But in so far as it directs and governs, it is not a part, it does not rank as a principle, but as a cause. Aristotle himself grants this, who, nevertheless, denies that the soul has that relation to the body which the steersman has to the ship: yet considering it with regard to that power which thinks and knows, he does not dare to call it a perfection and form of the body; but he considers it as an efficient cause, separate in essence from matter. He says that that is a thing which comes from without, self-existent and separated from the composite.

Dix. I approve what you say, because if that existence separate from the body belongs to the intellectual powers of our minds, and if this intellectual power has the value of an efficient cause,

much more should the same be affirmed concerning the Soul of the World. Because Plotinus says, writing against the Gnostics, that the Universal Soul rules the universe with much greater ease than our souls rule our bodies. Besides there is a great difference in the way in which the one and the other rules. The World-Soul, as if unbound, rules the world in such a way that it is not hampered by that which it controls, and does not suffer from, nor with other things. It rises without effort to lofty things. In giving life and perfection to the body, it does not itself take any taint of imperfection from that body; and therefore it is eternally conjoined with the same subject. The human soul is manifestly in quite the contrary condition. Since then, according to your principles, the perfections which exist in our inferior natures, in a far higher degree should be attributed to, and perceived in, superior natures, we ought doubtless to confirm the distinction which you have brought out. But we must recognize this not only in the Soul of the world, but also in every star. For it is the case (as the aforesaid philosopher holds), that they all have the power of contemplating God, the principles (sources) of all things and the arrangement of all parts of the universe. He does not indeed think that this takes place through memory, reasoning, and consideration; because each of their works is an eternal work, and there is no action which can be new to them, and therefore they do nothing which is not fitting to the whole, perfect, and with a certain and preordained order, and they accomplish all without an act of consideration. Aristotle shows this by using the example of a perfect writer, or zither-player. While in this case nature does not reason or reflect, he does not wish it to be concluded that she works without intelligence and final intention; because exquisite writers and musicians pay less attention to what they are doing, and yet do not blunder like the inexpert and clumsy, who while thinking and attending more, yet accomplish their work less perfectly, and not without blunders.

Theo. You understand me. Let us now pass on to the more special. It seems to me that they detract from the divine goodness and from the excellence of that great soul and simulacrum of the

first principle, who will not understand nor affirm that the world with all its members is animate. How should God be envious of his image, or how should the architect not love his own individual work, of whom Plato says that he takes pleasure in his work because of his own similitude which he admires in it. And truly, what more beautiful than this universe could be presented to the eyes of the Deity? And it being the case that this consists of its parts, to which of these should more be imparted than to the formal principle? I will leave for a better and more particular discourse a thousand natural reasons beyond this topical or logical one.

Dix. I do not care to have you exert yourself in that direction, considering that there is no philosopher of any reputation, even among the Peripatetics, who does not hold that the Universe and its spheres are in some way animated. I should now be glad to know in what manner you hold that this form makes its way into the material of the universe?

Theo. It joins itself to it in such a manner that corporeal nature, which in itself is not beautiful, in so far as it is capable of it, shares the beauty of the soul, since there is no beauty which does not consist of some figure or form, and no form which has not been produced by a soul.

Dix. I seem to be hearing an entirely new thing. You hold perhaps that not only the form of the Universe, but all forms of natural objects are souls?

Theo. Yes.

Dix. Have all things, then, souls?

Theo. Yes.

Dix. But who will grant you this?

Theo. But who with reason will be able to gainsay it?

Dix. According to common sense, not all things are alive.

Theo. The commonest sense is not the truest.

Dix. I easily believe that that can be defended. But the fact that a thing can be defended does not suffice to make it true, considering that it also must be proved.

Theo. That is not difficult. Are there not philosophers who say that the world has a soul?

Dix. There surely are many, and very notable ones.

Theo. Then why do not the same philosophers say that all the parts of the world have souls?

Dix. They surely do say that, but only concerning the most important parts, and those which are true parts of the world. Since with no less ground they hold that the soul is no less omnipresent throughout the world and in every conceivable part of it, than the souls of living beings perceptible to us are completely present throughout them.

Theo. Then what things do you think are not true parts of the Universe?

Dix. Those that are not what the Peripatetics call primal bodies, such as the earth, together with the waters and other parts, which, according to your statement, constitute the complete animate organism; or such as the moon, the sun, and other heavenly bodies. Beside these principal animate organisms there are those which are not primary parts of the universe, of which some are said to have a vegetative soul, some a sensitive soul, others an intellectual soul.

Theo. Yet, if accordingly the soul which is in everything, is also in the parts of everything, why do you not hold that it is in the parts of the parts?

Dix. It may be, but in the parts of the parts of animate things.

Theo. Now what things are there which are not animate, or are not parts of animate things?

Dix. Does it seem to you that we have so few such things before our eyes? All things which have not life.

Theo. And what are the things that have not life, at least the vital principle?

Dix. To come to an understanding, do you hold that there may be any things which may not have soul and which may not have the vital principle?

Theo. That, in fine, is what I hold.

Pol. Then a lifeless body has a soul? Then my shoes, my slippers, my boots, my spurs, my ring and my gloves have souls? My coat and mantle have souls?

Gerv. Yes, sir; yes, Master Polyhymnius, why not? I well

believe that your coat and mantle are thoroughly animated when they have such an animal as you inside them. The boots and spurs are animated when they contain the feet, the hat is animated when it contains the head, which latter is not without a soul, and the stall is animated when it contains the horse, the mule, or even your lordship. Do you not think so, Theophilus? Does it not seem to you that I have understood better than the *dominus magister?*

Pol. Cujum pecus (whose cattle)? As if there were not asses who are subtle with *etiam atque etiam* (also and also). How dare you, you trifler, you a-b-c-darian, compare yourself with a head-teacher and guide of the school of Minerva like me?

Gerv.[1] *Pax vobis domine magister, servus servorum, et scabellum pedum tuorum.*

Pol. Maledicat te Deus in saecula saeculorum.

Dix. No quarreling! Let these matters be settled by us.

Pol.[2] *Prosequatur ergo sua dogmata Theophilus.*

Theo. I will do so. I say, then, that the table as a table is not animate, nor the garments, nor the leather as leather, nor the glass as glass, but as natural things and composites they have within themselves matter and form. Let a thing be even as small and tiny as you will, it has within itself some portion of spiritual substance, which, if it finds a fitting vehicle, unfolds itself so as to become a plant, or an animal, and receives the members of whatsoever body you will, such as is commonly said to be animated, because spirit is found in all things, and there is not the least corpuscle which does not contain within itself some portion that may become living.

Pol.[3] *Ergo quidquid est animal est.*

Theo. Not all things which have soul are called animate.

Dix. Then, at least, all things have life?

Theo. I grant that all things contain within themselves a soul and have the essentials of life. I do not assert that all things

[1] *Gerv.* Peace be with you, lord and master, I am the servant of your servants, and the footstool for your feet.

Pol. The Lord curse you, world without end.

[2] *Pol.* Then let Theophilus continue his teaching.

[3] Therefore, whatever is, is animate.

are actually and recognizably alive, as would be required by all the Peripatetics, and by those who define life and soul in terms of principles that are too gross.

Dix. You show me the seemingly true way in which the opinion of Anaxagoras may be maintained, who held that all things are in all things. For since spirit, or soul, or universal form, exists in all things, all may be produced from all.

Theo. I do not say seemingly true, but true. For spirit is found in all things, those which are not living creatures are still vitalized, if not according to the perceptible presence of animation and life, yet they are animate according to the principle and, as it were, primal being of animation and life. And I cannot say more, because I will pass over the properties of many stones and gems, which being broken, and recut and arranged in disordered fragments, have a certain virtue, in altering the mind and engendering new affections and passions in the soul, and not only in the body. And we know that such effects do not proceed, nor can they come from purely material qualities; but they must necessarily be referred to a principle, as it were, vital. Furthermore, we perceive this very sensibly in case of withered plants and roots, which purifying and collecting humors, alter the states of minds and show unmistakably vital influences. I will grant that not without reason the necromancers hope to accomplish many things by means of the bones of the dead, and they believe that those bones retain, if not the very same, yet such a sort of vital activity as may become useful in producing remarkable effects. On other occasions I shall be able to discuss more at length the mind, the spirit, the soul, the life, which penetrates all, is in all, and moves all matter, fills the lap of that matter and dominates it rather than is dominated by it. For the spiritual substance cannot be overpowered by the material, but rather embraces it.

Dix. That appears to me to conform not only to the sense of Pythagoras, whose opinion the Poet rehearses when he says, —

> Principio caelum ac terras camposque liquentes,
> Lucentemque globum lunae Titaniaque astra

Spiritus intus alit, totamque infusa per artus
Mens agitat molem, totoque se corpore miscet,[1]

but also it conforms to the Theologian who says, "The spirit rules over and fills the earth, and that it is which contains all things." And another, speaking perchance of the dealings of form with matter and with potentiality, says that the latter is dominated by actuality and by form.

Theo. If then, spirit, mind, life, is found in all things, and in various degrees fills all matter, it must certainly follow, that it is the true actuality, and the true form of all things. The soul of the world, then, is the formal, constitutive principle of the universe, and of that which is contained within it. I say that if life is found in all things, the soul must be the form of all things; that which through everything presides over matter, holds sway over composite things, effects the composition and consistency of their parts. And therefore such form is no less enduring than matter. This I understand to be One in all things, which, however, according to the diversity of the disposition of matter, and according to the power of the material principle, both active and passive, comes to produce diverse configurations, and to effect different faculties, sometimes showing the effects of life without sense, sometimes the effects of life and sensation without intellect, and sometimes it appears that all the faculties are suppressed or repressed either by weakness, or by other conditions of matter. While this form thus changes place and circumstance, it is impossible that it should be annulled; because the spiritual substance is not less real than the material. Then only external forms can change and even be annulled, because they are not things, but of things; they are not substances; they are accidents and circumstances.

Pol. Non entia sed entium (not entities, but of entities).

Dix. Surely, if any substantial thing could be annulled, the universe would become empty.

[1] In the beginning the sky, the earth and the fields of the waters,
Glistening orb of the moon, and also the radiant sunlight,
All is inspired with life, and trembling through every member,
Mind vitalizes the mass, and with the whole body is mingled.

Virgil's *Æneid*, VI, 724 ff.

Theo. We have then an intrinsic principle, — formal, eternal, and subsistent, incomparably better than that which the Sophists have imagined, who play with accidents, ignorant of the substance of things, and who are led to assume corruptible substances because they call chiefly, primarily and principally that substance which results from composition. For the latter is only an accident, containing within itself no stability and truth, and resolves itself into nothing. They call that the true man which results from composition; they call that the true soul which is either the perfection of a living body, or at least a thing which results from a certain sympathy of complexion and members. Therefore, it is not strange that they do so much and so greatly fear death and dissolution; as those for whom ruin of their being is imminent. Against this madness nature cries out with a loud voice, assuring us that neither bodies nor souls should fear death, since both matter and form are absolutely constant principles.

> O genus attonitum gelidae formidine mortis,
> Quid Styga, quid tenebras, et nomina vana timetis,
> Materiam vatum, falsique pericula mundi?
> Corpora sive rogus flamma, seu tabe vetustas
> Abstulerit, mala posse pati non ulla potetis:
> Morte carent animae semperque priore relicta
> Sede novis domibus vivunt habitantque receptae.
> Omnia mutantur, nihil interit.[1]

Dix. That seems to me to agree with the opinion of Solomon, esteemed the wisest of men by the Hebrews. *Quid est quod est? Ipsum quod fuit. Quid est quod fuit? Ipsum quod est. Nihil sub sole novum.*[2] So that that form which you assume is not existent in and adherent to the matter according to its being

[1] Oh race, atremble with fear, with the icy terror of dying,
Wherefore dread ye the Styx, vain names, and the forms of the shadows,
Idle subjects for poets, and dangers of worlds that exist not?
Whether the funeral pile shall consume our bodies with fire,
Or old age wasting away, think not that we can suffer evil.
Souls are not subject to death, but former dwellings abandoned,
Rise to a shelter eternal, where they may inhabit forever.
Thus do all things suffer change, but nothing ever shall perish.
Ovid's *Metamorphoses*, Book XV

[2] Eccles. i, 9 (King James' Version): The thing which hath been, it is that

does not depend upon the body and upon matter in order that it shall subsist?

Theo. So it is. And furthermore, I do not decide whether all form is accompanied by matter. Of matter I already dare to say, that no portion of it is, in fact, devoid of form; unless you define form in a purely abstract sense, as Aristotle does. For he never wearies of dividing conceptually those things which in Nature and Truth are indivisible.

Dix. Do you not hold that there may be some other form besides this eternal companion of matter?

Theo. Yes, and a form more natural still, which is the material form of which we shall later reason. For the present, note this distinction of form. There is, namely, one sort, I call it the primal form, which informs, is extended, and is dependent. And since this informs everything, it is in the whole. And since in the whole it is extended, it communicates perfection from the whole to the parts. And because it is dependent and has no activity of itself alone, it communicates the activity of the whole to the parts, likewise the name and the being. Such is the material form, like that of fire. Because every part of the fire warms, it is called fire, and is fire. Secondly, there is another sort of form which informs and is dependent; but it is not extended, and such form, because it makes perfect and actuates the whole, is in the whole and in every part of the whole. Because it is not extended, it results that the activity of the whole is not attributed to the parts. Because it is dependent, the activity of the whole is communicated to the parts; and such is the vegetative and sensitive soul, because no *part* of the animal is *animal;* and, nevertheless, every part lives and feels. Third, there is another sort of form, which actuates and perfects the whole; but it is not extended, nor is it dependent as to its operations. This, because it actuates and makes perfect, is in the whole, and in each and every part. Because it is not extended, the perfection

which shall be. And that which is done, is that which shall be done. And there is no new thing under the sun.

The Latin Vulgate version reads: *Quid est quod fuit? ipsum quod futurum est. Quid est quod factum est? Ipsum quod faciendum est.*

Nihil sub sole novum.

of the whole is not attributed to the parts. Because it is not dependent, it does not communicate the activity of the whole to the parts. Such is the soul, in so far as it can exercise intellectual powers, and is called the intellective soul, which does not form any such part of man, that it can be called man, nor is it man, nor can it be said to mean this. Of these three sorts of form, the first is material, which cannot be understood, nor can it exist, without matter. The other two sorts (which, in fact, run together into one according to their substance and their being, and are distinguished according to the method which we have designated above) make up that formal principle which is distinct from the material principle.[1]

Dix. I understand.

Theo. Further than this, I want you to take notice that, although in common parlance we say that there are five grades or kinds of form: — *i. e.*, the Elemental, the Mixed, the Vegetative, the Sensitive, and the Intellective, we do not, however, understand this according to the common acceptation; because that distinction is valid according to the operations which appear with and proceed from the particular beings: not according to that ground of the primary and fundamental being of that form and spiritual life which itself fills all things, and not in the same manner.[2]

[1] The substance of the argument is this: The three kinds of form are distinguished with respect to three kinds of relations between whole and part, which are found in nature. The first kind of relation exists when a whole is such, that every part has the nature and, on occasion, the name of the whole. In such cases, the form may be said to extend itself to the parts. The form is here a conditioned or dependent form, — *i. e.*, it results from something higher than itself. The second type of relation of whole and part is found in living objects, which are not intelligent, — that is, in the vegetative and sensitive soul. Here the whole has a character which does not belong to every part, yet the nature of the whole pervades the parts, although not spatially. The third kind of relation of whole and part is exemplified by the Intellect, say in case of the human soul. The relation is here the one which Aristotle's doctrine had described in so dark a manner. According to our text, the Intellect pervades the man, for its perfection is communicated to every part of his nature. But it does not pervade him by extending itself spatially through him, but by imparting to every part of him its meaning. Furthermore, it does not make every part of him think. For it is not itself a dependent principle. It is rather that which makes the whole man a man, while nevertheless itself, it is not either a man or a part of a man.

[2] That is, the foregoing distinction of the three kinds of form is intended

Dix. I understand. Inasmuch as this form which you hold to be the principle is a subsistent form, it constitutes a perfect species, is of its own genus, and is not part of a species like that Peripatetic form.[1]

Theo. So it is.

Dix. The division of forms in matter is not according to the accidental dispositions which depend upon the material form.

Theo. True.

Dix. Hence also this separate form is not multiplied according to number, because all numerical multiplication depends upon matter.

Theo. Yes.

Dix. Though invariable in itself, it is variable through particular things and the diversity of matter, and such form, although in the subject it makes the part differ from the whole, yet itself does not differ in the part and in the whole; although one ground suits it as subsistent by itself, and another in so far as it is the activity and completion of some subject, and yet another in regard to a subject with dispositions of one sort, and another with those of another.

Theo. Exactly so.

Dix. This form is not to be understood as accidental, nor as like the accidental, nor as being mingled with matter, nor as being inherent in matter: but indwelling, associated, assistent.[2]

to introduce a closer connection between the natural forms that we see, and that universal World-form or life which Bruno posits, than would be possible if one accepted what Bruno calls the common division of Forms as final. For this common division of forms depends rather upon distinguishing five classes of Natural things, than upon distinguishing the characteristic types of relations of whole and part.

[1] The reference is now once more to the universal world-form, which forms no part of any one natural species.

[2] The universal form is subsistent,—*i. e.*, it has its own sundered and independent existence, apart from its infinitely numerous manifestations. Yet with equal truth, it is immanent in its manifestations, since it must manifest itself in these infinitely numerous forms. According as you take it in itself, or in its manifestations, you have to make numerous distinctions, according as you treat it, now as manifested by this, and now as manifested by that thing, now as thus or thus related to the whole and to parts of various things. But all such distinctions have no ultimate meaning. The great truth is: the true form is One.

Theo. That is what I affirm.

Dix. Furthermore, this form is defined and determined by matter, because it has in itself the means of constituting particular things of innumerable species; and restricts itself to constituting one individual: and on the other hand, the potentiality of indeterminate matter, which may receive any form you like, finds its completion in a species; so that the one is the cause of the definition and determination of the other.

Theo. Very well.

Dix. Then you approve, in some sort, the opinion of Anaxagoras who calls the particular forms of Nature latent, and in a sense that of Plato who deduces them from ideas, and in a manner that of Empedocles who makes them proceed from intelligence, and in some sort that of Aristotle who makes them, as it were, issue from the potentiality of matter?

Theo. Yes. Because, as we have said, where there is form, there is, in a certain manner, everything. Where there is soul, spirit, life, there is everything, for the creator of ideal forms and varieties is intellect. And even if it does not obtain forms from matter, it nevertheless does not go begging for them outside of matter, because this spirit fills the whole.

Pol.[1] *Velim scire quo modo forma est anima mundi ubique tota,* if it is indivisible? It must, then, be very big, even of infinite dimensions, if one may call the world infinite.

Gerv. There is good ground for its being large, as also a preacher at Grandazzo in Sicily said of our Lord: where as a sign that He is present through the whole world, he ordered a crucifix as big as the church, in the similitude of God the Father, who has the Empyrean heavens for a canopy; the starry heavens for his throne, and has such long legs that they reach down to the earth, which serves him for a footstool. To him came a certain peasant, and questioned him thus. Reverend father, now how many ells of cloth would it take to make his breeches? And another said that all the peas and beans of Melazzo and Nicosia

[1] *Pol.* I want to know in what way the form is everywhere the whole soul of the world, if it is indivisible.

would not suffice to fill his stomach. Look to it, then, that this World-soul is not made after such a fashion.

Theo. I do not know how to resolve your doubt, Gervasius, but perhaps I can that of Master Polyhymnius. I can, however, to satisfy you both, give you a comparison, because I wish you to carry away some fruits of our reasoning and discourse. Know, then, in brief, that the Soul of the World, and the Divinity are not omnipresent through all and through every part, in the way in which material things could be there: because this is impossible to any sort of body, and to any sort of spirit; but in a manner which is not easy to explain to you if not in this way. You should take notice that if the Soul of the World and the universal form are said to be everywhere, we do not mean *corporeally* and *dimensionally*, because such things cannot be; and just so they cannot be in any part. But they are *spiritually* present in everything — as, for example (perhaps a rough one), you can imagine a voice which is throughout a whole room and in every part of the room; because, through all, it is completely heard: just as these words which I utter are heard completely by all, even were there a thousand present, and my voice, could it reach throughout the whole world, would be everywhere through everything. I tell you then, Master Polyhymnius, that the soul is not indivisible like a point, but in some sort like the voice. And I answer you, Gervasius, that the Divinity is not everywhere in the sense that the God of Grandazzo was in the whole of the chapel, because, although he was present throughout the church, yet all of him was not present everywhere, but his head was in one part, his feet in another, his arms and his chest in yet other parts. But that other is in its entirety in every part, as my voice is heard completely in every part of this room.

Pol. Percepi optime.[1]

Gerv. At least your voice I have heard.

Dix. I well believe it of the voice, but as to the discourse, I think it has gone in at one ear and out at the other.

Gerv. I think it has not even gone in. For the rest, it is late, and the clock in my stomach has struck supper time.

[1] I perceived that perfectly.

Pol. *Hoc est, idest* to have your brains *in patinis.*[1]

Dix. Enough then. To-morrow perhaps we may meet to talk about the material principle.

Theo. Either I will expect you, or you may expect me here

[1] That is what it is to have your brains in your platter.

FRANCIS BACON
(1561–1626)

NOVUM ORGANUM*

Translated† from the Latin by
JAMES SPEDDING

APHORISMS CONCERNING THE INTERPRETATION OF NATURE AND THE KINGDOM OF MAN

"*THE IDOLS*"

I

MAN, being the servant and interpreter of nature, can do and understand so much and so much only as he has observed in fact or in thought of the course of nature: beyond this he neither knows anything nor can do anything.

II

Neither the naked hand nor the understanding left to itself can effect much. It is by instruments and helps that the work is done, which are as much wanted for the understanding as for the hand. And as the instruments of the hand either give motion or guide it, so the instruments of the mind supply either suggestions for the understanding or cautions.

III

Human knowledge and human power meet in one; for where the cause is not known the effect cannot be produced. Nature to be commanded must be obeyed; and that which in contemplation is as the cause is in operation as the rule.

* From *The Philosophical Works of Francis Bacon*, edited by Robert Leslie Ellis and James Spedding, London, 1861, vol. iv.

† The translation was originally made by an undergraduate of Trinity College, Cambridge, but Spedding is responsible for the form which it finally assumed.

IV

Towards the affecting of works, all that man can do is to put together or put asunder natural bodies. The rest is done by nature working within.

V

The study of nature with a view to works is engaged in by the mechanic, the mathematician, the physician, the alchemist, and the magician; but by all (as things now are) with slight endeavour and scanty success.

VI

It would be an unsound fancy and self-contradictory to expect that things which have never yet been done can be done except by means which have never yet been tried.

VII

The productions of the mind and hand seem very numerous in books and manufactures. But all this variety lies in an exquisite subtlety and derivations from a few things already known; not in the number of axioms.

VIII

Moreover the works already known are due to chance and experiment rather than to sciences; for the sciences we now possess are merely systems for the nice ordering and setting forth of things already invented; not methods of invention or directions for new works.

IX

The cause and root of nearly all evils in the sciences is this — that while we falsely admire and extol the powers of the human mind we neglect to seek for its true helps.

X

The subtlety of nature is greater many times over than the subtlety of the senses and understanding; so that all those specious meditations, speculations, and glosses in which men indulge are quite from the purpose, only there is no one by to observe it

XI

As the sciences which we now have do not help us in finding out new works, so neither does the logic which we now have help us in finding out new sciences.

XII

The logic now in use serves rather to fix and give stability to the errors which have their foundation in commonly received notions than to help the search after truth. So it does more harm than good.

XIII

The syllogism is not applied to the first principles of sciences, and is applied in vain to intermediate axioms; being no match for the subtlety of nature. It commands assent therefore to the proposition, but does not take hold of the thing.

XIV

The syllogism consists of propositions, propositions consist of words, words are symbols of notions. Therefore if the notions themselves (which is the root of the matter) are confused and over-hastily abstracted from the facts, there can be no firmness in the superstructure. Our only hope therefore lies in a true induction.

XV

There is no soundness in our notions whether logical or physical. Substance, Quality, Action, Passion, Essence itself, are not sound notions: much less are Heavy, Light, Dense, Rare, Moist, Dry, Generation, Corruption, Attraction, Repulsion, Element, Matter, Form, and the like; but all are fantastical and ill defined.

XVI

Our notions of less general species, as Man, Dog, Dove, and of the immediate perceptions of the sense, as Hot, Cold, Black, White, do not materially mislead us; yet even these are sometimes confused by the flux and alteration of matter and the mixing of one thing with another. All the others which men have hitherto adopted are but wanderings, not being abstracted and formed from things by proper methods.

XVII

Nor is there less of wilfulness and wandering in the construction of axioms than in the formations of notions; not excepting even those very principles which are obtained by common induction; but much more in the axioms and lower propositions educed by the syllogism.

XVIII

The discoveries which have hitherto been made in the sciences are such as lie close to vulgar notions, scarcely beneath the surface. In order to penetrate into the inner and further recesses of nature, it is necessary that both notions and axioms be derived from things by a more sure and guarded way; and that a method of intellectual operation be introduced altogether better and more certain.

XIX

There are and can be only two ways of searching into and discovering truth. The one flies from the senses and particulars to the most general axioms, and from these principles, the truth of which it takes for settled and immovable, proceeds to judgment and to the discovery of middle axioms. And this way is now in fashion. The other derives axioms from the senses and particulars, rising by a gradual and unbroken ascent, so that it arrives at the most general axioms last of all. This is the true way, but as yet untried.

XX

The understanding left to itself takes the same course (namely, the former) which it takes in accordance with logical order. For the mind longs to spring up to positions of higher generality, that it may find rest there; and so after a little while wearies of experiment. But this evil is increased by logic, because of the order and solemnity of its disputations.

XXI

The understanding left to itself, in a sober, patient, and grave mind, especially if it be not hindered by received doctrines, tries a little that other way, which is the right one, but with little progress; since the understanding, unless directed and assisted, is a thing unequal, and quite unfit to contend with the obscurity of things.

XXII

Both ways set out from the senses and particulars, and rest in the highest generalities; but the difference between them is infinite. For the one just glances at experiment and particulars in passing, the other dwells duly and orderly among them. The one,

again, begins at once by establishing certain abstract and useless generalities, the other rises by gradual steps to that which is prior and better known in the order of nature.

XXIII

There is a great difference between the Idols of the human mind and the Ideas of the divine. That is to say, between certain empty dogmas, and the true signatures and marks set upon the works of creation as they are found in nature.

XXIV

It cannot be that axioms established by argumentation should avail for the discovery of new works; since the subtlety of nature is greater many times over than the subtlety of argument. But axioms duly and orderly formed from particulars easily discover the way to new particulars, and thus render sciences active.

XXV

The axioms now in use, having been suggested by a scanty and manipular experience and a few particulars of most general occurrence, are made for the most part just large enough to fit and take these in: and therefore it is no wonder if they do not lead to new particulars. And if some opposite instance, not observed or not known before, chance to come in the way, the axiom is rescued and preserved by some frivolous distinction; whereas the truer course would be to correct the axiom itself.

XXVI

The conclusions of human reason as ordinarily applied in matter of nature, I call for the sake of distinction *Anticipations of Nature* (as a thing rash or premature). That reason which is elicited from facts by a just and methodical process, I call *Interpretation of Nature.*

XXVII

Anticipations are a ground sufficiently firm for consent; for even if men went mad all after the same fashion, they might agree one with another well enough.

XXVIII

For the winning of assent, indeed, anticipations are far more powerful than interpretations; because being collected from a few instances, and those for the most part of familiar occurrence,

they straightway touch the understanding and fill the imagination; whereas interpretations on the other hand, being gathered here and there from very various and widely dispersed facts, cannot suddenly strike the understanding; and therefore they must needs, in respect of the opinions of the time, seem harsh and out of tune; much as the mysteries of faith do.

XXIX

In sciences founded on opinions and dogmas, the use of anticipations and logic is good; for in them the object is to command assent to the proposition, not to master the thing.

XXX

Though all the wits of all the ages should meet together and combine and transmit their labours, yet will no great progress ever be made in science by means of anticipations; because radical errors in the first concoction of the mind are not to be cured by the excellence of functions and remedies subsequent.

XXXI

It is idle to expect any great advancement in science from the superinducing and engrafting of new things upon old. We must begin anew from the very foundations, unless we would revolve forever in a circle with mean and contemptible progress.

XXXII

The honour of the ancient authors, and indeed of all, remains untouched; since the comparison I challenge is not of wits or faculties, but of ways and methods, and the part I take upon myself is not that of a judge, but of a guide.

XXXIII

This must be plainly avowed: no judgment can be rightly formed either of my method or of the discoveries to which it leads, by means of anticipations (that is to say, of the reasoning which is now in use); since I cannot be called on to abide by the sentence of a tribunal which is itself on its trial.

XXXIV

Even to deliver and explain what I bring forward is no easy matter; for things in themselves new will yet be apprehended with reference to what is old.

XXXV

It was said by Borgia of the expedition of the French into Italy, that they came with chalk in their hands to mark out their lodgings, not with arms to force their way in. I in like manner would have my doctrine enter quietly into the minds that are fit and capable of receiving it; for confutations cannot be employed, when the difference is upon first principles and very notions and even upon forms of demonstration.

XXXVI

One method of delivery alone remains to us; which is simply this: we must lead men to the particulars themselves, and their series and order; while men on their side must force themselves for awhile to lay their notions by and begin to familiarise themselves with facts.

XXXVII

The doctrine of those who have denied that certainty could be attained at all, has some agreement with my way of proceeding at the first setting out; but they end in being infinitely separated and opposed. For the holders of that doctrine assert simply that nothing can be known; I also assert that not much can be known in nature by the way which is now in use. But then they go on to destroy the authority of the senses and understanding; whereas I proceed to devise and supply helps for the same.

XXXVIII

The idols and false notions which are now in possession of the human understanding, and have taken deep root therein, not only so beset men's minds that truth can hardly find entrance, but even after entrance obtained, they will again in the very instauration of the sciences meet and trouble us, unless men being forewarned of the danger fortify themselves as far as may be against their assaults.

XXXIX

There are four classes of Idols which beset men's minds. To these for distinction's sake I have assigned names, — calling the first class *Idols of the Tribe;* the second, *Idols of the Cave;* the third, *Idols of the Market-place;* the fourth, *Idols of the Theatre.*

XL

The formation of ideas and axioms by true induction is no doubt the proper remedy to be applied for the keeping off and clearing away of idols. To point them out, however, is of great use; for the doctrine of Idols is to the Interpretation of Nature what the doctrine of the refutation of Sophisms is to common Logic.

XLI

The Idols of the Tribe have their foundation in human nature itself, and in the tribe or race of men. For it is a false assertion that the sense of man is the measure of things. On the contrary, all perceptions as well of the sense as of the mind are according to the measure of the individual and not according to the measure of the universe. And the human understanding is like a false mirror, which, receiving rays irregularly, distorts and discolours the nature of things by mingling its own nature with it.

XLII

The Idols of the Cave are the idols of the individual man. For every one (besides the errors common to human nature in general) has a cave or den of his own, which refracts and discolours the light of nature; owing either to his own proper and peculiar nature; or to his education and conversation with others; or to the reading of books, and the authority of those whom he esteems and admires; or to the differences of impressions, accordingly as they take place in a mind preoccupied and predisposed or in a mind indifferent and settled; or the like. So that the spirit of man (according as it is meted out to different individuals) is in fact a thing variable and full of perturbation, and governed as it were by chance. Whence it was well observed by Heraclitus that men look for sciences in their own lesser worlds, and not in the greater or common world.

XLIII

There are also Idols formed by the intercourse and association of men with each other, which I call Idols of the Market-place, on account of the commerce and consort of men there. For it is by discourse that men associate; and words are imposed according to the apprehension of the vulgar. And therefore

the ill and unfit choice of words wonderfully obstructs the understanding. Nor do the definitions or explanations wherewith in some things learned men are wont to guard and defend themselves, by any means set the matter right. But words plainly force and overrule the understanding, and throw all into confusion, and lead men away into numberless empty controversies and idle fancies.

XLIV

Lastly, there are Idols which have immigrated into men's minds from the various dogmas of philosophies, and also from wrong laws of demonstration. These I call Idols of the Theatre; because in my judgment all the received systems are but so many stage-plays, representing worlds of their own creation after an unreal and scenic fashion. Nor is it only of the systems now in vogue, or only of the ancient sects and philosophies, that I speak; for many more plays of the same kind may yet be composed and in like artificial manner set forth; seeing that errors the most widely different have nevertheless causes for the most part alike. Neither again do I mean this only of entire systems, but also of many principles and axioms in science, which by tradition, credulity, and negligence have come to be received.

But of these several kinds of Idols I must speak more largely and exactly, that the understanding may be duly cautioned.

XLV

The human understanding is of its own nature prone to suppose the existence of more order and regularity in the world than it finds. And though there be many things in nature which are singular and unmatched, yet it devises for them parallels and conjugates and relatives which do not exist. Hence the fiction that all celestial bodies move in perfect circles; spirals and dragons being (except in name) utterly rejected. Hence too the element of Fire with its orb is brought in, to make up the square with the other three which the sense perceives. Hence also the ratio of density of the so-called elements is arbitrarily fixed at ten to one. And so on of other dreams. And these fancies affect not dogmas only, but simple notions also.

XLVI

The human understanding when it has once adopted an opinion (either as being the received opinion or as being agreeable to itself) draws all things else to support and agree with it. And though there be a greater number and weight of instances to be found on the other side, yet these it either neglects and despises, or else by some distinction sets aside and rejects; in order that by this great and pernicious predetermination the authority of its former conclusions may remain inviolate. And therefore it was a good answer that was made by one who when they showed him hanging in a temple a picture of those who had paid their vows as having escaped shipwreck, and would have him say whether he did not now acknowledge the power of the gods, — "Aye," asked he again, "but where are they painted that were drowned after their vows?" And such is the way of all superstition, whether in astrology, dreams, omens, divine judgments, or the like; wherein men, having a delight in such vanities, mark the events where they are fulfilled, but where they fail, though this happen much oftener, neglect and pass them by. But with far more subtlety does this mischief insinuate itself into philosophy and the sciences; in which the first conclusion colours and brings into conformity with itself all that come after, though far sounder and better. Besides, independently of that delight and vanity which I have described, it is the peculiar and perpetual error of the human intellect to be more moved and excited by affirmatives than by negatives; whereas it ought properly to hold itself indifferently disposed towards both alike. Indeed in the establishment of any true axiom, the negative instance is the more forcible of the two.

XLVII

The human understanding is moved by those things most which strike and enter the mind simultaneously and suddenly, and so fill the imagination; and then it feigns and supposes all other things to be somehow, though it cannot see how, similar to those few things by which it is surrounded. But for that going to and fro to remote and heterogeneous instances, by which axioms are tried as in the fire, the intellect is altogether slow and

unfit, unless it be forced thereto by severe laws and overruling authority.

XLVIII

The human understanding is unquiet; it cannot stop or rest, and still presses onward, but in vain. Therefore it is that we cannot conceive of any end or limit to the world; but always as of necessity it occurs to us that there is something beyond. Neither again can it be conceived how eternity has flowed down to the present day; for that distinction which is commonly received of infinity in time past and in time to come can by no means hold; for it would thence follow that one infinity is greater than another, and that infinity is wasting away and tending to become finite. The like subtlety arises touching the infinite divisibility of lines, from the same inability of thought to stop. But this inability interferes more mischievously in the discovery of causes: for although the most general principles in nature ought to be held merely positive, as they are discovered, and cannot with truth be referred to a cause; nevertheless the human understanding being unable to rest still seeks something prior in the order of nature. And then it is that in struggling towards that which is further off it falls back upon that which is more nigh at hand; namely, on final causes: which have relation clearly to the nature of man rather than to the nature of the universe; and from this source have strangely defiled philosophy. But he is no less an unskilled and shallow philosopher who seeks causes of that which is most general, than he who in things subordinate and subaltern omits to do so.

XLIX

The human understanding is no dry light, but receives an infusion from the will and affections; whence proceed sciences which may be called "sciences as one would." For what a man had rather were true he more readily believes. Therefore he rejects difficult things from impatience of research; sober things, because they narrow hope; the deeper things of nature, from superstition; the light of experience, from arrogance and pride, lest his mind should seem to be occupied with things mean and transitory; things not commonly believed, out of deference to

the opinion of the vulgar. Numberless in short are the ways, and sometimes imperceptible, in which the affections colour and infect the understanding.

L

But by far the greatest hindrance and aberration of the human understanding proceeds from the dulness, incompetency, and deceptions of the senses; in that things which strike the sense outweigh things which do not immediately strike it, though they be more important. Hence it is that speculation commonly ceases where sight ceases; insomuch that of things invisible there is little or no observation. Hence all the working of the spirits inclosed in tangible bodies lies hid and unobserved of men. So also all the more subtle changes of form in the parts of coarser substances (which they commonly call alteration, though it is in truth local motion through exceedingly small spaces) is in like manner unobserved. And yet unless these two things just mentioned be searched out and brought to light, nothing great can be achieved in nature, as far as the production of works is concerned. So again the essential nature of our common air, and of all bodies less dense than air (which are very many), is almost unknown. For the sense by itself is a thing infirm and erring; neither can instruments for enlarging or sharpening the senses do much; but all the truer kind of interpretation of nature is effected by instances and experiments fit and apposite; wherein the sense decides touching the experiment only, and the experiment touching the point in nature and the thing itself.

LI

The human understanding is of its own nature prone to abstractions and gives a substance and reality to things which are fleeting. But to resolve nature into abstractions is less to our purpose than to dissect her into parts; as did the school of Democritus, which went further into nature than the rest. Matter rather than forms should be the object of our attention, its configurations and changes of configuration, and simple action, and law of action or motion; for forms are figments of the human mind, unless you will call those laws of action forms.

LII

Such then are the idols which I call *Idols of the Tribe;* and which take their rise either from the homogeneity of the substance of the human spirit, or from its preoccupation, or from its narrowness, or from its restless motion, or from an infusion of the affections, or from the incompetency of the senses, or from the mode of impression.

LIII

The *Idols of the Cave* take their rise in the peculiar constitution, mental or bodily, of each individual; and also in education, habit, and accident. Of this kind there is a great number and variety; but I will instance those the pointing out of which contains the most important caution, and which have most effect in disturbing the clearness of the understanding.

LIV

Men become attached to certain particular sciences and speculations, either because they fancy themselves the authors and inventors thereof, or because they have bestowed the greatest pains upon them and become most habituated to them. But men of this kind, if they betake themselves to philosophy and contemplation of a general character, distort and colour them in obedience to their former fancies; a thing especially to be noticed in Aristotle, who made his natural philosophy a mere bond-servant to his logic, thereby rendering it contentious and well-nigh useless. The race of chemists again out of a few experiments of the furnace have built up a fantastic philosophy, framed with reference to a few things; and Gilbert also, after he had employed himself most laboriously in the study and observation of the loadstone, proceeded at once to construct an entire system in accordance with his favourite subject.

LV

There is one principal and as it were radical distinction between different minds, in respect of philosophy and the sciences; which is this: that some minds are stronger and apter to mark the differences of things, others to mark their resemblances. The steady and acute mind can fix its contemplations and dwell and fasten on the subtlest distinctions: the lofty and discursive mind re-

cognizes and puts together the finest and most general resemblances. Both kinds however easily err in excess, by catching the one at gradations the other at shadows.

LVI

There are found some minds given to an extreme admiration of antiquity, others to an extreme love and appetite for novelty; but few so duly tempered that they can hold the mean, neither carping at what has been well laid down by the ancients, nor despising what is well introduced by the moderns. This, however, turns to the great injury of the sciences and philosophy; since these affectations of antiquity and novelty are the humours of partisans rather than judgments; and truth is to be sought for not in the felicity of any age, which is an unstable thing, but in the light of nature and experience, which is eternal. These factions therefore must be abjured, and care must be taken that the intellect be not hurried by them into assent.

LVII

Contemplations of nature and of bodies in their simple form break up and distract the understanding, while contemplations of nature and bodies in their composition and configuration overpower and dissolve the understanding; a distinction well seen in the school of Leucippus and Democritus as compared with the other philosophies. For that school is so busied with the particles that it hardly attends to the structure; while the others are so lost in admiration of the structure that they do not penetrate to the simplicity of nature. These kinds of contemplation should therefore be alternated and taken by turns; that so the understanding may be rendered at once penetrating and comprehensive, and the inconveniences above mentioned, with the idols which proceed from them, may be avoided.

LVIII

Let such then be our provision and contemplative prudence for keeping off and dislodging the *Idols of the Cave*, which grow for the most part either out of the predominance of a favourite subject, or out of an excessive tendency to compare or to distinguish, or out of partiality for particular ages, or out of the largeness or minuteness of the objects contemplated. And gen-

erally let every student of nature take this as a rule, — that whatever his mind seizes and dwells upon with peculiar satisfaction is to be held in suspicion, and that so much the more care is to be taken in dealing with such questions to keep the understanding even and clear.

LIX

But the *Idols of the Market-place* are the most troublesome of all: idols which have crept into the understanding through the alliances of words and names. For men believe that their reason governs words; but it is also true that words react on the understanding; and this it is that has rendered philosophy and the sciences sophistical and inactive. Now words, being commonly framed and applied according to the capacity of the vulgar, follow those lines of division which are most obvious to the vulgar understanding. And whenever an understanding of greater acuteness or a more diligent observation would alter those lines to suit the true divisions of nature, words stand in the way and resist the change. Whence it comes to pass that the high and formal discussions of learned men end oftentimes in disputes about words and names; with which (according to the use and wisdom of the mathematicians) it would be more prudent to begin, and so by means of definitions reduce them to order. Yet even definitions cannot cure this evil in dealing with natural and material things; since the definitions themselves consist of words, and those words beget others: so that it is necessary to recur to individual instances, and those in due series and order; as I shall say presently when I come to the method and scheme for the formation of notions and axioms.

LX

The idols imposed by words on the understanding are of two kinds. They are either names of things which do not exist (for as there are things left unnamed through lack of observation, so likewise are there names which result from fantastic suppositions and to which nothing in reality corresponds), or they are names of things which exist, but yet confused and ill-defined, and hastily and irregularly derived from realities. Of the former kind are Fortune, the Prime Mover, Planetary Orbits,

Element of Fire, and like fictions which owe their origin to false and idle theories. And this class of idols is more easily expelled, because to get rid of them it is only necessary that all theories should be steadily rejected and dismissed as obsolete.

But the other class, which springs out of a faulty and unskilful abstraction, is intricate and deeply rooted. Let us take for example such a word as *humid;* and see how far the several things which the word is used to signify agree with each other; and we shall find the word *humid* to be nothing else than a mark loosely and confusedly applied to denote a variety of actions which will not bear to be reduced to any constant meaning. For it both signifies that which easily spreads itself round any other body; and that which in itself is indeterminate and cannot solidize; and that which readily yields in every direction; and that which easily divides and scatters itself; and that which easily unites and collects itself; and that which readily flows and is put in motion; and that which readily clings to another body and wets it; and that which is easily reduced to a liquid, or being solid easily melts. Accordingly when you come to apply the word, — if you take it in one sense, flame is humid; if in another, air is not humid; if in another, fine dust is humid; if in another, glass is humid. So that it is easy to see that the notion is taken by abstraction only from water and common and ordinary liquids, without any due verification.

There are however in words certain degrees of distortion and error. One of the least faulty kinds is that of names of substances, especially of lowest species and well-deduced (for the notion of *chalk* and of *mud* is good, of *earth* bad); a more faulty kind is that of actions, as *to generate, to corrupt, to alter;* the most faulty is of qualities (except such as are the immediate objects of the sense), as *heavy, light, rare, dense,* and the like. Yet in all these cases some notions are of necessity a little better than others, in proportion to the greater variety of subjects that fall within the range of the human sense.

LXI

But the *Idols of the Theatre* are not innate, nor do they steal into the understanding secretly, but are plainly impressed and

received into the mind from the play-books of philosophical systems and the perverted rules of demonstration. To attempt refutations in this case would be merely inconsistent with what I have already said: for since we agree neither upon principles nor upon demonstrations there is no place for argument. And this is so far well, inasmuch as it leaves the honour of the ancients untouched. For they are no wise disparaged — the question between them and me being only as to the way. For as the saying is, the lame man who keeps the right road outstrips the runner who takes a wrong one. Nay it is obvious that when a man runs the wrong way, the more active and swift he is the further he will go astray.

But the course I propose for the discovery of sciences is such as leaves but little to the acuteness and strength of wits, but places all wits and understandings nearly on a level. For as in the drawing of a straight line or a perfect circle, much depends on the steadiness and practice of the hand, if it be done by aim of hand only, but if with the aid of rule and compass, little or nothing; so is it exactly with my plan. But though particular confutations would be of no avail, yet touching the sects and general divisions of such systems I must say something; something also touching the external signs which show that they are unsound; and finally something touching the causes of such great infelicity and of such lasting and general agreement in error; that so the access to truth may be made less difficult, and the human understanding may the more willingly submit to its purgation and dismiss its idols.

LXII

Idols of the Theatre, or of Systems, are many, and there can be and perhaps will be yet many more. For were it not that now for many ages men's minds have been busied with religion and theology; and were it not that civil governments, especially monarchies, have been averse to such novelties, even in matters speculative; so that men labour therein to the peril and harming of their fortunes, — not only unrewarded, but exposed also to contempt and envy; doubtless there would have arisen many other philosophical sects like to those which in great variety

flourished once among the Greeks. For as on the phenomena of the heavens many hypotheses may be constructed, so likewise (and more also) many various dogmas may be set up and established on the phenomena of philosophy. And in the plays of this philosophical theatre you may observe the same thing which is found in the theatre of the poets, that stories invented for the stage are more compact and elegant, and more as one would wish them to be, than true stories out of history.

In general however there is taken for the material of philosophy either a great deal out of a few things, or a very little out of many things; so that on both sides philosophy is based on too narrow a foundation of experiment and natural history, and decides on the authority of too few cases. For the Rational School of philosophers snatches from experience a variety of common instances, neither duly ascertained nor diligently examined and weighed, and leaves all the rest to meditation and agitation of wit.

There is also another class of philosophers, who having bestowed much diligent and careful labour on a few experiments, have thence made bold to educe and construct systems; wresting all other facts in a strange fashion to conformity therewith.

And there is yet a third class, consisting of those who out of faith and veneration mix their philosophy with theology and traditions; among whom the vanity of some has gone so far aside as to seek the origin of sciences among spirits and genii. So that this parent stock of errors — this false philosophy — is of three kinds; the Sophistical, the Empirical, and the Superstitious.

LXIII

The most conspicuous example of the first class was Aristotle, who corrupted natural philosophy by his logic: fashioning the world out of categories; assigning to the human soul, the noblest of substances, a genus from words of the second intention; doing the business of density and rarity (which is to make bodies of greater or less dimensions, that is, occupy greater or less spaces), by the frigid distinction of act and power; asserting that single bodies have each a single and proper motion, and that if they participate in any other, then this results from an external cause

and imposing countless other arbitrary restrictions on the nature of things; being always more solicitous to provide an answer to the question and affirm something positive in words, than about the inner truth of things; a failing best shown when his philosophy is compared with other systems of note among the Greeks. For the Homœomera of Anaxagoras; the Atoms of Leucippus and Democritus; the Heaven and Earth of Parmenides; the Strife and Friendship of Empedocles; Heraclitus's doctrine how bodies are resolved into the indifferent nature of fire, and remoulded into solids; have all of them some taste of the natural philosopher, — some savour of the nature of things, and experience, and bodies; whereas in the physics of Aristotle you hear hardly anything but the words of logic; which in his metaphysics also, under a more imposing name, and more forsooth as a realist than a nominalist, he has handled over again. Nor let any weight be given to the fact, that in his books on animals and his problems, and other of his treatises, there is frequent dealing with experiments. For he had come to his conclusion before; he did not consult experience, as he should have done, in order to the framing of his decisions and axioms; but having first determined the question according to his will, he then resorts to experience, and bending her into conformity with his placets leads her about like a captive in a procession; so that even on this count he is more guilty than his modern followers, the schoolmen, who have abandoned experience altogether.

LXIV

But the Empirical school of philosophy gives birth to dogmas more deformed and monstrous than the Sophistical or Rational school. For it has its foundations not in the light of common notions (which though it be a faint and superficial light, is yet in a manner universal, and has reference to many things) but in the narrowness and darkness of a few experiments. To those therefore who are daily busied with these experiments, and have infected their imagination with them, such a philosophy seems probable and all but certain; to all men else incredible and vain. Of this there is a notable instance in the alchemists and their

dogmas; though it is hardly to be found elsewhere in these times, except perhaps in the philosophy of Gilbert. Nevertheless with regard to philosophies of this kind there is one caution not to be omitted; for I foresee that if ever men are roused by my admonitions to betake themselves seriously to experiment and bid farewell to sophistical doctrines, then indeed through the premature hurry of the understanding to leap or fly to universals and principles of things, great danger may be apprehended from philosophies of this kind; against which evil we ought even now to prepare.

LXV

But the corruption of philosophy by superstition and an admixture of theology is far more widely spread, and does the greatest harm, whether to entire systems or to their parts. For the human understanding is obnoxious to the influence of the imagination no less than to the influence of common notions. For the contentious and sophistical kind of philosophy ensnares the understanding; but this kind, being fanciful and tumid and half poetical, misleads it more by flattery. For there is in man an ambition of the understanding, no less than of the will, especially in high and lofty spirits.

Of this kind we have among the Greeks a striking example in Pythagoras, though he united with it a coarser and more cumbrous superstition; another in Plato and his school, more dangerous and subtle. It shows itself likewise in parts of other philosophies, in the introduction of abstract forms and final causes and first causes, with the omission in most cases of causes intermediate, and the like. Upon this point the greatest caution should be used. For nothing is so mischievous as the apotheosis of error; and it is a very plague of the understanding for vanity to become the object of veneration. Yet in this vanity some of the moderns have with extreme levity indulged so far as to attempt to found a system of natural philosophy on the first chapter of Genesis, on the book of Job, and other parts of the sacred writings; seeking for the dead among the living; which also makes the inhibition and repression of it the more important, because from this unwholesome mixture of things human and divine

there arises not only a fantastic philosophy but also an heretical religion. Very meet it is therefore that we be sober-minded, and give to faith that only which is faith's.

LXVI

So much then for the mischievous authorities of systems, which are founded either on common notions, or on a few experiments, or on superstition. It remains to speak of the faulty subject-matter of contemplations, especially in natural philosophy. Now the human understanding is infected by the sight of what takes place in the mechanical arts, in which the alteration of bodies proceeds chiefly by composition or separation, and so imagines that something similar goes on in the universal nature of things. From this source has flowed the fiction of elements, and of their concourse for the formation of natural bodies. Again, when man contemplates nature working freely, he meets with different species of things, of animals, of plants, of minerals; whence he readily passes into the opinion that there are in nature certain primary forms which nature intends to educe, and that the remaining variety proceeds from hindrances and aberrations of nature in the fulfilment of her work, or from the collision of different species and the transplanting of one into another. To the first of these speculations we owe our primary qualities of the elements; to the other our occult properties and specific virtues; and both of them belong to those empty *compendia* of thought wherein the mind rests, and whereby it is diverted from more solid pursuits. It is to better purpose that the physicians bestow their labour on the secondary qualities of matter, and the operations of attraction, repulsion, attenuation, conspissation, dilatation, astriction, dissipation, maturation, and the like; and were it not that by those two compendia which I have mentioned (elementary qualities, to wit, and specific virtues) they corrupted their correct observations in these other matters, — either reducing them to first qualities and their subtle and incommensurable mixtures, or not following them out with greater and more diligent observation to third and fourth qualities, by breaking off the scrutiny prematurely, — they had made much greater progress. Nor are powers of this kind (I do not say the

same, but similar) to be sought for only in the medicines of the human body, but also in the changes of all other bodies.

But it is a far greater evil that they make the quiescent principles, *wherefrom*, and not the moving principles, *whereby*, things are produced, the object of their contemplation and inquiry. For the former tend to discourse, the latter to works. Nor is there any value in those vulgar distinctions of motion which are observed in the received system of natural philosophy, as generation, corruption, augmentation, diminution, alteration, and local motion. What they mean no doubt is this: If a body in other respects not changed, be moved from its place, this is *local motion;* if without change of place or essence, it be changed in quality, this is *alteration;* if by reason of the change the mass and quantity of the body do not remain the same, this is *augmentation* or *diminution;* if they be changed to such a degree that they change their very essence and substance and turn to something else, this is *generation* and *corruption.* But all this is merely popular, and does not at all go deep into nature; for these are only measures and limits, not kinds of motion. What they intimate is *how far*, not *by what means*, or *from what source.* For they do not suggest anything with regard either to the desires of bodies or to the development of their parts: it is only when that motion presents the thing grossly and palpably to the sense as different from what it was, that they begin to mark the division. Even when they wish to suggest something with regard to the causes of motion, and to establish a division with reference to them, they introduce with the greatest negligence a distinction between motion natural and violent; a distinction which is itself drawn entirely from a vulgar notion, since all violent motion is also in fact natural; the external efficient simply setting nature working otherwise than it was before. But if, leaving all this, any one shall observe (for instance) that there is in bodies a desire of mutual contact, so as not to suffer the unity of nature to be quite separated or broken and a vacuum thus made; or if any one say that there is in bodies a desire of resuming their natural dimensions or tension, so that if compressed within or extended beyond them, they immediately strive to recover themselves,

and fall back to their old volume and extent; or if any one say that there is in bodies a desire of congregating towards masses of kindred nature, — of dense bodies, for instance, towards the globe of the earth, of thin and rare bodies towards the compass of the sky; all these and the like are truly physical kinds of motion, — but those others are entirely logical and scholastic, as is abundantly manifest from this comparison.

Nor again is it a less evil, that in their philosophies and contemplations their labour is spent in investigating and handling the first principles of things and the highest generalities of nature; whereas utility and the means of working result entirely from things intermediate. Hence it is that men cease not from abstracting nature till they come to potential and uninformed matter, nor on the other hand from dissecting nature till they reach the atom; things which, even if true, can do but little for the welfare of mankind.

LXVII

A caution must also be given to the understanding against the intemperance which systems of philosophy manifest in giving or withholding assent; because intemperance of this kind seems to establish Idols and in some sort to perpetuate them, leaving no way open to reach and dislodge them.

This excess is of two kinds: the first being manifest in those who are ready in deciding, and render sciences dogmatic and magisterial; the other in those who deny that we can know anything, and so introduce a wandering kind of inquiry that leads to nothing; of which kinds the former subdues, the latter weakens the understanding. For the philosophy of Aristotle, after having by hostile confutations destroyed all the rest (as the Ottomans serve their brothers), has laid down the law on all points; which done, he proceeds himself to raise new questions of his own suggestion, and dispose of them likewise; so that nothing may remain that is not certain and decided: a practice which holds and is in use among his successors.

The school of Plato, on the other hand, introduced *Acatalepsia*, at first in jest and irony, and in disdain of the older sophists, Protagoras, Hippias, and the rest, who were of nothing else so

much ashamed as of seeming to doubt about anything. But the New Academy made a dogma of it, and held it as a tenet. And though theirs is a fairer seeming way than arbitrary decisions; since they say that they by no means destroy all investigation, like Pyrrho and his Refrainers, but allow of some things to be followed as probable, though of none to be maintained as true; yet still when the human mind has once despaired of finding truth, its interest in all things grows fainter; and the result is that men turn aside to pleasant disputations and discourses and roam as it were from object to object, rather than keep on a course of severe inquisition. But, as I said at the beginning and am ever urging, the human senses and understanding, weak as they are, are not to be deprived of their authority, but to be supplied with helps.

LXVIII

So much concerning the several classes of Idols, and their equipage: all of which must be renounced and put away with a fixed and solemn determination, and the understanding thoroughly freed and cleansed; the entrance into the kingdom of man, founded on the sciences, being not much other than the entrance into the kingdom of heaven, whereinto none may enter except as a little child.

LXIX

But vicious demonstrations are as the strongholds and defences of Idols; and those we have in logic do little else than make the world the bond-slave of human thought, and human thought the bond-slave of words. Demonstrations truly are in effect the philosophies themselves and the sciences. For such as *they* are, well or ill established, such are the systems of philosophy and the contemplations which follow. Now in the whole of the process which leads from the sense and objects to axioms and conclusions, the demonstrations which we use are deceptive and incompetent. This process consists of four parts, and has as many faults. In the first place, the impressions of the sense itself are faulty; for the sense both fails us and deceives us. But its short-comings are to be supplied, and its deceptions to be corrected. Secondly, notions are ill drawn from the impression

of the senses, and are indefinite and confused, whereas they should be definite and distinctly bounded. Thirdly, the induction is amiss which infers the principles of sciences by simple enumeration, and does not, as it ought, employ exclusions and solutions (or separations) of nature. Lastly, that method of discovery and proof according to which the most general principles are first established, and then intermediate axioms are tried and proved by them, is the parent of error and the curse of all science. Of these things however, which now I do but touch upon, I will speak more largely, when, having performed these expiations and purgings of the mind, I come to set forth the true way for the interpretation of nature.

"INDUCTION"

XCII

But by far the greatest obstacle to the progress of science and to the undertaking of new tasks and provinces therein, is found in this — that men despair and think things impossible. For wise and serious men are wont in these matters to be altogether distrustful; considering with themselves the obscurity of nature, the shortness of life, the deceitfulness of the senses, the weakness of the judgment, the difficulty of experiment and the like; and so supposing that in the revolution of time and of the ages of the world the sciences have their ebbs and flows; that at one season they grow and flourish, at another wither and decay, yet in such sort that when they have reached a certain point and condition they can advance no further. If therefore any one believes or promises more, they think this comes of an ungoverned and unripened mind, and that such attempts have prosperous beginnings, become difficult as they go on, and end in confusion. Now since these are thoughts which naturally present themselves to grave men and of great judgment, we must take good heed that we be not led away by our love for a most fair and excellent object to relax or diminish the severity of our judgment; we must observe diligently what encouragement dawns upon us and from what quarter; and, putting aside the lighter breezes of hope, we must

thoroughly sift and examine those which promise greater steadiness and constancy. Nay, and we must take state-prudence too into our counsels, whose rule is to distrust, and to take the less favourable view of human affairs. I am now therefore to speak touching Hope; especially as I am not a dealer in promises, and wish neither to force nor to ensnare men's judgments, but to lead them by the hand with their good will. And though the strongest means of inspiring hope will be to bring men to particulars; especially to particulars digested and arranged in my Tables of Discovery (the subject partly of the second, but much more of the fourth part of my Instauration), since this is not merely the promise of the thing but the thing itself; nevertheless that everything may be done with gentleness, I will proceed with my plan of preparing men's minds; of which preparation to give hope is no unimportant part. For without it the rest tends rather to make men sad (by giving them a worse and meaner opinion of things as they are than they now have, and making them more fully to feel and know the unhappiness of their own condition) than to induce any alacrity or to whet their industry in making trial. And therefore it is fit that I publish and set forth those conjectures of mine which make hope in this matter reasonable; just as Columbus did, before that wonderful voyage of his across the Atlantic, when he gave the reasons for his conviction that new lands and continents might be discovered besides those which were known before; which reasons, though rejected at first, were afterwards made good by experience, and were the causes and beginnings of great events.

XCIII

The beginning is from God: for the business which is in hand, having the character of good so strongly impressed upon it, appears manifestly to proceed from God, who is the author of good, and the Father of Lights. Now in divine operations even the smallest beginnings lead of a certainty to their end. And as it was said of spiritual things, "The kingdom of God cometh not with observation," so is it in all the greater works of Divine Providence; everything glides on smoothly and noiselessly, and the work is fairly going on before men are aware that it has begun.

Nor should the prophecy of Daniel be forgotten, touching the last ages of the world: "Many shall go to and fro, and knowledge shall be increased;" clearly intimating that the thorough passage of the world (which now by so many distant voyages seems to be accomplished, or in course of accomplishment), and the advancement of the sciences, are destined by fate, that is, by Divine Providence, to meet in the same age.

XCIV

Next comes a consideration of the greatest importance as an argument of hope; I mean that drawn from the errors of past time, and of the ways hitherto trodden. For most excellent was the censure once passed upon a Government that had been unwisely administered. "That which is the worst thing in reference to the past, ought to be regarded as best for the future. For if you had done all that your duty demanded, and yet your affairs were no better, you would not have even a hope left you that further improvement is possible. But now, when your misfortunes are owing, not to the force of circumstances, but to your own errors, you may hope that by dismissing or correcting these errors, a great change may be made for the better." In like manner, if during so long a course of years men had kept the true road for discovering and cultivating sciences, and had yet been unable to make further progress therein, bold doubtless and rash would be the opinion that further progress is possible. But if the road itself has been mistaken, and men's labour spent on unfit objects, it follows that the difficulty has its rise not in things themselves, which are not in our power, but in the human understanding, and the use and application thereof, which admits of remedy and medicine. It will be of great use therefore to set forth what these errors are; for as many impediments as there have been in times past from this cause, so many arguments are there of hope for the time to come. And although they have been partly touched before, I think fit here also, in plain and simple words, to represent them.

XCV

Those who have handled sciences have been either men of experiment or men of dogmas. The men of experiment are like

the ant; they only collect and use: the reasoners resemble spiders, who make cobwebs out of their own substance. But the bee takes a middle course; it gathers its material from the flowers of the garden and of the field, but transforms and digests it by a power of its own. Not unlike this is the true business of philosophy; for it neither relies solely or chiefly on the powers of the mind, nor does it take the matter which it gathers from natural history and mechanical experiments and lay it up in the memory whole, as it finds it; but lays it up in the understanding altered and digested. Therefore from a closer and purer league between these two faculties, the experimental and the rational (such as has never yet been made), much may be hoped.

XCVI

We have as yet no natural philosophy that is pure; all is tainted and corrupted; in Aristotle's school by logic; in Plato's by natural theology; in the second school of Platonists, such as Proclus and others, by mathematics, which ought only to give definiteness to natural philosophy, not to generate or give it birth. From a natural philosophy pure and unmixed, better things are to be expected.

XCVII

No one has yet been found so firm of mind and purpose as resolutely to compel himself to sweep away all theories and common notions, and to apply the understanding, thus made fair and even, to a fresh examination of particulars. Thus it happens that human knowledge, as we have it, is a mere medley and ill-digested mass, made up of much credulity and much accident, and also of the childish notions which we at first imbibed.

Now if any one of ripe age, unimpaired senses, and well-purged mind, apply himself anew to experience and particulars, better hopes may be entertained of that man. In which point I promise to myself a like fortune to that of Alexander the Great; and let no man tax me with vanity till he have heard the end; for the thing which I mean tends to the putting off of all vanity. For of Alexander and his deeds Æschines spake thus: "Assuredly we do not live the life of mortal men; but to this end were we born, that in after ages wonders might be told of us;" as if what

Alexander had done seemed to him miraculous. But in the next age Titus Livius took a better and a deeper view of the matter, saying in effect, that Alexander "had done no more than take courage to despise vain apprehensions." And a like judgment I suppose may be passed on myself in future ages: that I did no great things, but simply made less account of things that were accounted great. In the meanwhile, as I have already said, there is no hope except in a new birth of science; that is, in raising it regularly up from experience and building it afresh; which no one (I think) will say has yet been done or thought of.

XCVIII

Now for grounds of experience — since to experience we must come — we have as yet had either none or very weak ones; no search has been made to collect a store of particular observations sufficient either in number, or in kind, or in certainty, to inform the understanding, or in any way adequate. On the contrary, men of learning, but easy withal and idle, have taken for the construction or for the confirmation of their philosophy certain rumours and vague fames or airs of experience, and allowed to these the weight of lawful evidence. And just as if some kingdom or state were to direct its counsels and affairs, not by letters and reports from ambassadors and trustworthy messengers, but by the gossip of the streets; such exactly is the system of management introduced into philosophy with relation to experience. Nothing duly investigated, nothing verified, nothing counted, weighed, or measured, is to be found in natural history: and what in observation is loose and vague, is in information deceptive and treacherous. And if any one thinks that this is a strange thing to say, and something like an unjust complaint, seeing that Aristotle, himself so great a man, and supported by the wealth of so great a king, has composed so accurate a history of animals; and that others with greater diligence, though less pretence, have made many additions; while others, again, have compiled copious histories and descriptions of metals, plants, and fossils; it seems that he does not rightly apprehend what it is that we are now about. For a natural history which is composed for its own sake is not like one that is collected to supply

the understanding with information for the building up of philosophy. They differ in many ways, but especially in this; that the former contains the variety of natural species only, and not experiment of the mechanical arts. For even as in the business of life a man's disposition and the secret workings of his mind and affections are better discovered when he is in trouble than at other times; so likewise the secrets of Nature reveal themselves more readily under the vexations of art than when they go their own way. Good hopes may therefore be conceived of natural philosophy, when natural history, which is the basis and foundation of it, has been drawn up on a better plan; but not till then.

XCIX

Again, even in the great plenty of mechanical experiments, there is yet a great scarcity of those which are of most use for the information of the understanding. For the mechanic, not troubling himself with the investigation of truth, confines his attention to those things which bear upon his particular work, and will not either raise his mind or stretch out his hand for anything else. But then only will there be good ground of hope for the further advance of knowledge, when there shall be received and gathered together into natural history a variety of experiments, which are of no use in themselves, but simply serve to discover causes and axioms; which I call "*Experimenta lucifera*," experiments of *light*, to distinguish them from those which I call "*fructifera*," experiments of *fruit*.

Now experiments of this kind have one admirable property and condition; they never miss or fail. For since they are applied, not for the purpose of producing any particular effect, but only of discovering the natural cause of some effect, they answer the end equally well which ever way they turn out; for they settle the question.

C

But not only is a greater abundance of experiments to be sought for and procured, and that too of a different kind from those hitherto tried; an entirely different method, order, and process for carrying on and advancing experience must also be intro-

duced. For experience, when it wanders in its own track, is, as I have already remarked, mere groping in the dark, and confounds men rather than instructs them. But when it shall proceed in accordance with a fixed law, in regular order, and without interruption, then may better things be hoped of knowledge.

CI

But even after such a store of natural history and experience as is required for the work of the understanding, or of philosophy, shall be ready to hand, still the understanding is by no means competent to deal with it off-hand and by memory alone; no more than if a man should hope by force of memory to retain and make himself master of the computation of an ephemeris. And yet hitherto more has been done in matter of invention by thinking than by writing; and experience has not yet learned her letters. Now no course of invention can be satisfactory unless it be carried on in writing. But when this is brought into use, and experience has been taught to read and write, better things may be hoped.

CII

Moreover, since there is so great a number and army of particulars, and that army so scattered and dispersed as to distract and confound the understanding, little is to be hoped for from the skirmishings and slight attacks and desultory movements of the intellect, unless all the particulars which pertain to the subject of inquiry shall, by means of Tables of Discovery, apt, well arranged, and as it were animate, be drawn up and marshalled; and the mind be set to work upon the helps duly prepared and digested which these tables supply.

CIII

But after this store of particulars has been set out duly and in order before our eyes, we are not to pass at once to the investigation and discovery of new particulars or works; or at any rate if we do so we must not stop there. For although I do not deny that when all the experiments of all the arts shall have been collected and digested, and brought within one man's knowledge and judgment, the mere transferring of the experiments of one art to others may lead, by means of that experience which I term

literate, to the discovery of many new things of service to the life and state of man, yet it is no great matter that can be hoped from that; but from the new light of axioms, which having been educed from those particulars by a certain method and rule, shall in their turn point out the way again to new particulars, greater things may be looked for. For our road does not lie on a level, but ascends and descends; first ascending to axioms, then descending to works.

CIV

The understanding must not however be allowed to jump and fly from particulars to remote axioms and of almost the highest generality (such as the first principles, as they are called, of arts and things), and taking stand upon them as truths that cannot be shaken, proceed to prove and frame the middle axioms by reference to them; which has been the practice hitherto; the understanding being not only carried that way by a natural impulse, but also by the use of syllogistic demonstration trained and inured to it. But then, and then only, may we hope well of the sciences, when in a just scale of ascent, and by successive steps not interrupted or broken, we rise from particulars to lesser axioms; and then to middle axioms, one above the other; and last of all to the most general. For the lowest axioms differ but slightly from bare experience, while the highest and most general (which we now have) are notional and abstract and without solidity. But the middle are the true and solid and living axioms, on which depend the affairs and fortunes of men; and above them again, last of all, those which are indeed the most general; such I mean as are not abstract, but of which those intermediate axioms are really limitations.

The understanding must not therefore be supplied with wings, but rather hung with weights, to keep it from leaping and flying. Now this has never yet been done; when it is done, we may entertain better hopes of the sciences.

CV

In establishing axioms, another form of induction must be devised than has hitherto been employed; and it must be used for proving and discovering not first principles (as they are called)

only, but also the lesser axioms, and the middle, and indeed **all.** For the induction which proceeds by simple enumeration is childish; its conclusions are precarious, and exposed to peril from a contradictory instance; and it generally decides on too small a number of facts, and on those only which are at hand. But the induction which is to be available for the discovery and demonstration of sciences and arts, must analyse nature by proper rejections and exclusions; and then, after a sufficient number of negatives, come to a conclusion on the affirmative instances: which has not yet been done or even attempted, save only by Plato, who does indeed employ this form of induction to a certain extent for the purpose of discussing definitions and ideas. But in order to furnish this induction or demonstration well and duly for its work, very many things are to be provided which no mortal has yet thought of; insomuch that greater labour will have to be spent in it than has hitherto been spent on the syllogism. And this induction must be used not only to discover axioms, but also in the formation of notions. And it is in this induction that our chief hope lies.

CVI

But in establishing axioms by this kind of induction, we must also examine and try whether the axiom so established be framed to the measure of those particulars only from which it is derived, or whether it be larger and wider. And if it be larger and wider, we must observe whether by indicating to us new particulars it confirm that wideness and largeness as by a collateral security; that we may not either stick fast in things already known, or loosely grasp at shadows and abstract form; not at things solid and realised in matter. And when this process shall have come into use, then at last shall we see the dawn of a solid hope.

THOMAS HOBBES

(1588–1679)

LEVIATHAN *

OR THE MATTER, FORM, AND POWER OF A COMMONWEALTH, ECCLESIASTICAL AND CIVIL

PART I.—OF MAN

CHAPTER I. OF SENSE

CONCERNING the thoughts of man, I will consider them first singly, and afterwards in train, or dependence upon one another. Singly, they are every one a *representation* or *appearance*, of some quality, or other accident of a body without us, which is commonly called an *object*. Which object worketh on the eyes, ears, and other parts of a man's body; and by diversity of working, produceth diversity of appearances.

The original of them all, is that which we call SENSE, for there is no conception in a man's mind, which hath not at first, totally or by parts, been begotten upon the organs of sense. The rest are derived from that original.

To know the natural cause of sense, is not very necessary to the business now in hand; and I have elsewhere written of the same at large. Nevertheless, to fill each part of my present method, I will briefly deliver the same in this place.

The cause of sense, is the external body, or object, which presseth the organ proper to each sense, either immediately, as in the taste and touch; or mediately, as in seeing, hearing, and smelling; which pressure, by the mediation of the nerves, and other strings and membranes of the body, continued inwards to the brain and heart, causeth there a resistance, or counter-

* *Leviathan*, first edition, London, 1651. Reprinted here from Hobbes' *English Works*, collected and edited by Sir William Molesworth, London, 1839, vol. iii.

pressure or endeavour of the heart to deliver itself, which endeavour, because *outward*, seemeth to be some matter without. And this *seeming*, or *fancy*, is that which men call *sense;* and consisteth, as to the eye, in a *light*, or *colour figured;* to the ear, in a *sound;* to the nostril, in an *odour;* to the tongue and palate, in a *savour;* and to the rest of the body, in *heat*, *cold*, *hardness*, *softness*, and such other qualities as we discern by *feeling*. All which qualities, called *sensible*, are in the object, that causeth them, but so many several motions of the matter, by which it presseth our organs diversely. Neither in us that are pressed, are they anything else, but divers motions; for motion produceth nothing but motion. But their appearance to us is fancy, the same waking, that dreaming. And as pressing, rubbing, or striking the eye, makes us fancy a light; and pressing the ear, produceth a din; so do the bodies also we see, or hear, produce the same by their strong, though unobserved action. For if those colours and sounds were in the bodies, or objects that cause them, they could not be severed from them, as by glasses, and in echoes by reflection, we see they are; where we know the thing we see is in one place, the appearance in another. And though at some certain distance, the real and very object seem invested with the fancy it begets in us; yet still the object is one thing, the image or fancy is another. So that sense, in all cases, is nothing else but original fancy, caused, as I have said, by the pressure, that is, by the motion, of external things upon our eyes, ears, and other organs thereunto ordained.

But the philosophy-schools, through all the universities of Christendom, grounded upon certain texts of Aristotle, teach another doctrine, and say, for the cause of *vision*, that the thing seen, sendeth forth on every side a *visible species*, in English, a *visible show*, *apparition*, or *aspect*, or *a being seen;* the receiving whereof into the eye, is *seeing*. And for the cause of *hearing*, that the thing heard, sendeth forth an *audible species*, that is an *audible aspect*, or *audible being seen;* which entering at the ear, maketh *hearing*. Nay, for the cause of *understanding* also, they say the thing understood, sendeth forth an *intelligible species*, that is, an *intelligible being seen;* which, coming into the under-

standing, makes us understand. I say not this, as disproving the use of universities; but because I am to speak hereafter of their office in a commonwealth, I must let you see on all occasions by the way, what things would be amended in them; amongst which the frequency of insignificant speech is one.

CHAPTER II. OF IMAGINATION

That when a thing lies still, unless somewhat else stir it, it will lie still for ever, is a truth that no man doubts of. But that when a thing is in motion, it will eternally be in motion, unless somewhat else stay it, though the reason be the same, namely, that nothing can change itself, is not so easily assented to. For men measure, not only other men, but all other things, by themselves; and because they find themselves subject after motion to pain, and lassitude, think everything else grows weary of motion, and seeks repose of its own accord; little considering, whether it be not some other motion, wherein that desire of rest they find in themselves, consisteth. From hence it is, that the schools say, heavy bodies fall downwards, out of an appetite to rest, and to conserve their nature in that place which is most proper for them; ascribing appetite, and knowledge of what is good for their conservation, which is more than man has, to things inanimate, absurdly.

When a body is once in motion, it moveth, unless something else hinder it, eternally; and whatsoever hindreth it, cannot in an instant, but in time, and by degrees, quite extinguish it; and as we see in the water, though the wind cease, the waves give not over rolling for a long time after: so also it happeneth in that motion, which is made in the internal parts of a man, then, when he sees, dreams, &c. For after the object is removed, or the eye shut, we still retain an image of the thing seen, though more obscure than when we see it. And this is it, the Latins call *imagination*, from the image made in seeing; and apply the same, though improperly, to all the other senses. But the Greeks call it *fancy;* which signifies *appearance*, and is as proper to one sense, as to another. IMAGINATION, therefore, is nothing but *decaying*

sense; and is found in men, and many other living creatures, as well sleeping, as waking.

The decay of sense in men waking, is not the decay of the motion made in sense; but an obscuring of it, in such manner as the light of the sun obscureth the light of the stars; which stars do no less exercise their virtue, by which they are visible, in the day than in the night. But because amongst many strokes, which our eyes, ears, and other organs receive from external bodies, the predominant only is sensible; therefore, the light of the sun being predominant, we are not affected with the action of the stars. And any object being removed from our eyes, though the impression it made in us remain, yet other objects more present succeeding, and working on us, the imagination of the past is obscured, and made weak, as the voice of a man is in the noise of the day. From whence it followeth, that the longer the time is, after the sight or sense of any object, the weaker is the imagination. For the continual change of man's body destroys in time the parts which in sense were moved: so that distance of time, and of place, hath one and the same effect in us. For as at a great distance of place, that which we look at appears dim, and without distinction of the smaller parts; and as voices grow weak, and inarticulate; so also, after great distance of time, our imagination of the past is weak; and we lose, for example, of cities we have seen, many particular streets, and of actions, many particular circumstances. This *decaying sense*, when we would express the thing itself, I mean *fancy* itself, we call *imagination*, as I said before: but when we would express the decay, and signify that the sense is fading, old, and past, it is called *memory.* So that imagination and memory are but one thing, which for divers considerations hath divers names.

Much memory, or memory of many things, is called *experience.* Again, imagination being only of those things which have been formerly perceived by sense, either all at once, or by parts at several times, the former, which is the imagining the whole object as it was presented to the sense, is *simple* imagination, as when one imagineth a man, or horse, which he hath seen before. The other is *compounded;* as when, from the sight of a man at one

time, and of a horse at another, we conceive in our mind a Centaur. So when a man compoundeth the image of his own person with the image of the actions of another man, as when a man imagines himself a Hercules or an Alexander, which happeneth often to them that are much taken with reading of romances, it is a compound imagination, and properly but a fiction of the mind. There be also other imaginations that rise in men, though waking, from the great impression made in sense: as from gazing upon the sun, the impression leaves an image of the sun before our eyes a long time after; and from being long and vehemently attent upon geometrical figures, a man shall in the dark, though awake, have the images of lines and angles before his eyes; which kind of fancy hath no particular name, as being a thing that doth nct commonly fall into men's discourse.

The imaginations of them that sleep are those we call *dreams*. And these also, as also all other imaginations, have been before, either totally or by parcels, in the sense. And because in sense, the brain and nerves, which are the necessary organs of sense, are so benumbed in sleep as not easily to be moved by the action of external objects, there can happen in sleep no imagination, and therefore no dream, but what proceeds from the agitation of the inward parts of man's body; which inward parts, for the connexion they have with the brain, and other organs, when they be distempered, do keep the same in motion; whereby the imaginations there formerly made appear as if a man were waking; saving that the organs of sense being now benumbed, so as there is no new object, which can master and obscure them with a more vigorous impression, a dream must needs be more clear, in this silence of sense, than our waking thoughts. And hence it cometh to pass, that it is a hard matter, and by many thought impossible, to distinguish exactly between sense and dreaming. For my part, when I consider that in dreams I do not often nor constantly think of the same persons, places, objects, and actions, that I do waking; nor remember so long a train of coherent thoughts, dreaming, as at other times; and because waking I often observe the absurdity of dreams, but never dream

of the absurdities of my waking thoughts; I am well satisfied, that being awake, I know I dream not, though when I dream I think myself awake.

And seeing dreams are caused by the distemper of some of the inward parts of the body, divers distempers must needs cause different dreams. And hence it is that lying cold breedeth dreams of fear, and raiseth the thought and image of some fearful object, the motion from the brain to the inner parts and from the inner parts to the brain being reciprocal; and that as anger causeth heat in some parts of the body when we are awake, so when we sleep the overheating of the same parts causeth anger, and raiseth up in the brain the imagination of an enemy. In the same manner, as natural kindness, when we are awake, causeth desire, and desire makes heat in certain other parts of the body; so also too much heat in those parts, while we sleep, raiseth in the brain an imagination of some kindness shown. In sum, our dreams are the reverse of our waking imaginations; the motion when we are awake beginning at one end, and when we dream at another.

The most difficult discerning of a man's dream, from his waking thoughts, is then, when by some accident we observe not that we have slept: which is easy to happen to a man full of fearful thoughts, and whose conscience is much troubled· and that sleepeth, without the circumstances of going to bed or putting off his clothes, as one that noddeth in a chair For he that taketh pains, and industriously lays himself to sleep, in case any uncouth and exorbitant fancy come unto him, cannot easily think it other than a dream. We read of Marcus Brutus (one that had his life given him by Julius Cæsar, and was also his favourite, and notwithstanding murdered him), how at Philippi, the night before he gave battle to Augustus Cæsar, he saw a fearful apparition, which is commonly related by historians as a vision; but considering the circumstances, one may easily judge to have been but a short dream. For sitting in his tent, pensive and troubled with the horror of his rash act, it was not hard for him, slumbering in the cold, to dream of that which most affrighted him; which fear, as by degrees it made him wake, so also it must needs make the apparition by degrees to vanish

and having no assurance that he slept, he could have no cause to think it a dream, or anything but a vision. And this is no very rare accident; for even they that be perfectly awake, if they be timorous and superstitious, possessed with fearful tales, and alone in the dark, are subject to the like fancies, and believe they see spirits and dead men's ghosts walking in churchyards; whereas it is either their fancy only, or else the knavery of such persons as make use of such superstitious fear, to pass disguised in the night to places they would not be known to haunt.

From this ignorance of how to distinguish dreams, and other strong fancies, from vision and sense, did arise the greatest part of the religion of the Gentiles in time past, that worshipped satyrs, fawns, nymphs, and the like; and now-a-days the opinion that rude people have of fairies, ghosts, and goblins, and of the power of witches. For as for witches, I think not that their witchcraft is any real power; but yet that they are justly punished, for the false belief they have that they can do such mischief, joined with their purpose to do it if they can; their trade being nearer to a new religion than to a craft or science. And for fairies, and walking ghosts, the opinion of them has, I think, been on purpose either taught or not confuted, to keep in credit the use of exorcism, of crosses, of holy water, and other such inventions of ghostly men. Nevertheless, there is no doubt but God can make unnatural apparitions; but that He does it so often as men need to fear such things more than they fear the stay or change of the course of nature, which He also can stay and change is no point of Christian faith. But evil men, under pretext that God can do anything, are so bold as to say any thing when it serves their turn, though they think it untrue; it is the part of a wise man, to believe them no farther, than right reason makes that which they say, appear credible. If this superstitious fear of spirits were taken away, and with it, prognostics from dreams, false prophecies, and many other things depending thereon, by which crafty ambitious persons abuse the simple people, men would be much more fitted than they are for civil obedience.

And this ought to be the work of the schools; but they rather

nourish such doctrine. For, not knowing what imagination or the senses are, what they receive they teach: some saying, that imaginations rise of themselves, and have no cause; others that they rise most commonly from the will, and that good thoughts are blown (inspired) into a man by God, and evil thoughts by the Devil; or that good thoughts are poured (infused) into a man by God, and evil ones by the Devil. Some say the senses receive the species of things, and deliver them to the common sense; and the common sense delivers them over to the fancy, and the fancy to the memory, and the memory to the judgment, like handing of things from one to another, with many words making nothing understood.

The imagination that is raised in man, or any other creature indued with the faculty of imagining, by words, or other voluntary signs, is that we generally call *understanding*, and is common to man and beast. For a dog by custom will understand the call, or the rating of his master; and so will many other beasts. That understanding which is peculiar to man, is the understanding not only his will, but his conceptions and thoughts, by the sequel and contexture of the names of things into affirmations, negations, and other forms of speech; and of this kind of understanding I shall speak hereafter.

CHAPTER III. OF THE CONSEQUENCE OR TRAIN OF IMAGINATIONS

By *Consequence*, or TRAIN of thoughts, I understand that succession of one thought to another which is called, to distinguish it from discourse in words, *mental discourse.*

When a man thinketh on anything whatsoever, his next thought after is not altogether so casual as it seems to be. Not every thought to every thought succeeds indifferently. But as we have no imagination, whereof we have not formerly had sense, in whole, or in parts, so we have no transition from one imagination to another, whereof we never had the like before in our senses. The reason whereof is this. All fancies are motions within us, relics of those made in the sense; and those motions that imme-

diately succeeded one another in the sense continue also together after sense; insomuch as the former coming again to take place and be predominant, the latter followeth, by coherence of the matter moved, in such manner as water upon a plane table is drawn which way any one part of it is guided by the finger. But because in sense, to one and the same thing perceived, sometimes one thing, sometimes another succeedeth, it comes to pass in time, that in the imagining of anything, there is no certainty what we shall imagine next; only this is certain, it shall be something that succeeded the same before, at one time or another.

This train of thoughts, or mental discourse, is of two sorts. The first is *unguided, without design,* and inconstant; wherein there is no passionate thought to govern and direct those that follow, to itself, as the end and scope of some desire, or other passion: in which case the thoughts are said to wander, and seem impertinent one to another, as in a dream. Such are commonly the thoughts of men, that are not only without company, but also without care of anything; though even then their thoughts are as busy as at other times, but without harmony; as the sound which a lute out of tune would yield to any man, or in tune to one that could not play. And yet in this wild ranging of the mind, a man may oft-times perceive the way of it, and the dependence of one thought upon another. For in a discourse of our present civil war, what could seem more impertinent than to ask, as one did, what was the value of a Roman penny? Yet the coherence to me was manifest enough. For the thought of the war, introduced the thought of the delivering up the king to his enemies; the thought of that, brought in the thought of the delivering up of Christ; and that again the thought of the thirty pence, which was the price of that treason; and thence easily followed that malicious question, and all this in a moment of time; for thought is quick.

The second is more constant, as being *regulated* by some desire, and design. For the impression made by such things as we desire, or fear, is strong and permanent, or, if it cease for a time, of quick return: so strong it is sometimes, as to hinder and break our sleep. From desire, ariseth the thought of some means we

have seen produce the like of that which we aim at; and from the thought of that, the thought of means to that means; and so continually till we come to some beginning within our own power. And because the end, by the greatness of the impression, comes often to mind, in case our thoughts begin to wander, they are quickly again reduced into the way: which observed by one of the seven wise men, made him give men this precept, which is now worn out, *Respice finem;* that is to say, in all your actions, look often upon what you would have as the thing that directs all your thoughts in the way to attain it.

The train of regulated thoughts is of two kinds: one, when of an effect imagined we seek the causes, or means that produce it; and this is common to man and beast. The other is, when imagining anything whatsoever, we seek all the possible effects that can by it be produced; that is to say, we imagine what we can do with it, when we have it. Of which I have not at any time seen any sign, but in man only; for this is a curiosity hardly incident to the nature of any living creature that has no other passion but sensual, such as are hunger, thirst, lust, and anger. In sum, the discourse of the mind, when it is governed by design, is nothing but *seeking*, or the faculty of invention, which the Latins called *sagacitas*, and *solertia;* a hunting out of the causes of some effect, present or past; or of the effects of some present or past cause. Sometimes a man seeks what he hath lost; and from that place and time wherein he misses it, his mind runs back, from place to place, and time to time, to find where, and when he had it; that is to say, to find some certain and limited time and place, in which to begin a method of seeking. Again, from thence his thoughts run over the same places and times, to find what action or other occasion might make him lose it. This we call *remembrance*, or calling to mind: the Latins call it *reminiscentia*, as it were a *re-conning* of our former actions.

Sometimes a man knows a place determinate, within the compass whereof he is to seek; and then his thoughts run over all the parts thereof, in the same manner as one would sweep a room to find a jewel; or as a spaniel ranges the field till he find a scent: or as a man should run over the alphabet, to start a rhyme.

Sometimes a man desires to know the event of an action; and then he thinketh of some like action past, and the events thereof one after another, supposing like events will follow like actions. As he that foresees what will become of a criminal, reckons what he has seen follow on the like crime before, having this order: thoughts, the crime, the officer, the prison, the judge, and the gallows. Which kind of thoughts, is called *foresight*, and *prudence*, or *providence;* and sometimes *wisdom;* though such conjecture, through the difficulty of observing all circumstances, be very fallacious. But this is certain: by how much one man has more experience of things past, than another, by so much also he is more prudent, and his expectations the seldomer fail him. The *present* only has a being in nature; things *past* have a being in the memory only, but things *to come* have no being at all; the *future* being but a fiction of the mind, applying the sequels of actions past, to the actions that are present; which with most certainty is done by him that has most experience, but not with certainty enough. And though it be called prudence, when the event answereth our expectation, yet in its own nature, it is but presumption. For the foresight of things to come, which is providence, belongs only to him by whose will they are to come. From him only, and supernaturally, proceeds prophecy. The best prophet naturally is the best guesser; and the best guesser, he that is most versed and studied in the matters he guesses at: for he hath most *signs* to guess by.

A *sign* is the evident antecedent of the consequent; and contrarily, the consequent of the antecedent when the like consequences have been observed before: and the oftener they have been observed, the less uncertain is the sign. And therefore he that has most experience in any kind of business, has most signs, whereby to guess at the future time, and consequently is the most prudent: and so much more prudent than he that is new in that kind of business as not to be equalled by any advantage of natural and extemporary wit: though perhaps many young men think the contrary.

Nevertheless it is not prudence that distinguisheth man from beast. There be beasts, that at a year old observe more, and

pursue that which is for their good, more prudently than a child can do at ten.

As prudence is a *presumption* of the *future*, contracted from the *experience* of time *past*, so there is a presumption of things past taken from other things, not future, but past also. For he that hath seen by what courses and degrees a flourishing state hath first come into civil war, and then to ruin, upon the sight of the ruins of any other state, will guess, the like war, and the like courses have been there also. But his conjecture, has the same uncertainty almost with the conjecture of the future, both being grounded only upon experience.

There is no other act of man's mind, that I can remember, naturally planted in him, so as to need no other thing, to the exercise of it, but to be born a man and live with the use of his five senses. Those other faculties, of which I shall speak by and by, and which seem proper to man only, are acquired and increased by study and industry, and of most men learned by instruction, and discipline, and proceed all from the invention of words, and speech. For besides sense, and thoughts, and the train of thoughts, the mind of man has no other motion; though by the help of speech and method, the same faculties may be improved to such a height, as to distinguish men from all other living creatures.

Whatsoever we imagine is *finite*. Therefore there is no idea, or conception of any thing we call *infinite*. No man can have in his mind an image of infinite magnitude, nor conceive infinite swiftness, infinite time, or infinite force, or infinite power. When we say any thing is infinite, we signify only that we are not able to conceive the ends, and bounds of the things named, having no conception of the thing, but of our own inability. And therefore the name of God is used, not to make us conceive him, for he is incomprehensible, and his greatness, and power are unconceivable; but that we may honour him. Also because, whatsoever, as I said before, we conceive has been perceived first by sense, either all at once, or by parts; a man can have no thought, representing any thing, not subject to sense. No man therefore can conceive any thing, but he must conceive it in some place,

and indued with some determinate magnitude, and which may be divided into parts; nor that any thing is all in this place and all in another place at the same time; nor that two or more things can be in one and the same place at once: for none of these things ever have nor can be incident to sense; but are absurd speeches, taken upon credit, without any signification at all, from deceived philosophers, and deceived, or deceiving schoolmen.

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CHAPTER V. OF REASON AND SCIENCE

When a man *reasoneth*, he does nothing else but conceive a sum total, from *addition* of parcels; or conceive a remainder, from *subtraction* of one sum from another, which, if it be done by words, is conceiving of the consequence of the names of all the parts, to the name of the whole; or from the names of the whole and one part, to the name of the other part. And though in some things, as in numbers, besides adding and subtracting, men name other operations, as *multiplying* and *dividing*, yet they are the same; for multiplication, is but adding together of things equal; and division, but subtracting of one thing as often as we can. These operations are not incident to numbers only, but to all manner of things that can be added together, and taken one out of another. For as arithmeticians teach to add and subtract in *numbers*, so the geometricians teach the same in *lines*, *figures*, solid and superficial, *angles*, *proportions*, *times*, degrees of *swiftness*, *force*, *power*, and the like; the logicians teach the same in *consequences of words*, adding together two *names* to make an *affirmation*, and two *affirmations* to make a *syllogism*, and *many syllogisms* to make a *demonstration*, and from the *sum*, or *conclusion* of a *syllogism*, they subtract one *proposition* to find the other. Writers of politics add together *pactions* to find men's *duties;* and lawyers, *laws* and *facts*, to find what is *right* and *wrong* in the actions of private men. In sum, in what matter soever there is place for *addition* and *subtraction*, there also is place for *reason;* and where these have no place, there *reason* has nothing at all to do.

Out of all which we may define, that is to say determine, what that is, which is meant by this word *reason*, when we reckon it amongst the faculties of the mind. For REASON[1] in this sense is nothing but *reckoning*, that is adding and subtracting, of the consequences of general names agreed upon for the *marking* and *signifying* of our thoughts; I say *marking* them when we reckon by ourselves, and *signifying* when we demonstrate or approve our reckonings to other men.

And, as in arithmetic, unpractised men must, and professors themselves may often, err, and cast up false; so also in any other subject of reasoning, the ablest, most attentive, and most practised men may deceive themselves, and infer false conclusions; not but that reason itself is always right reason, as well as arithmetic is a certain and infallible art; but no one man's reason, nor the reason of any one number of men, makes the certainty; no more than an account is therefore well cast up, because a great many men have unanimously approved it. And therefore, as when there is a controversy in an account, the parties must by their own accord set up, for right reason, the reason of some arbitrator or judge to whose sentence they will both stand, or their controversy must either come to blows, or be undecided, for want of a right reason constituted by nature; so is it also in all

[1] Compare Hobbes, *Elements of Philosophy* (Molesworth ed., vol. i, ch. i, p. 3): "PHILOSOPHY is *such knowledge of effects or appearances as we acquire by true ratiocination from the knowledge we have first of their causes or generation: And again, of such causes or generations as may be from knowing first their effects.*

For the better understanding of which definition, we must consider, first, that although Sense and Memory of things, which are common to man and all living creatures, be knowledge, yet because they are given us immediately by nature and not gotten by ratiocination, they are not philosophy.

Secondly, seeing Experience is nothing but memory; and Prudence, or prospect into the future time, nothing but expectation of such things as we have already had experience of, Prudence also is not to be esteemed philosophy.

By RATIOCINATION, I mean *computation*. Now to compute is either to collect the sum of many things that are added together, or to know what remains when one thing is taken out of another. *Ratiocination*, therefore, is the same with *addition* and *subtraction;* and if any man add *multiplication* and *division*, I will not be against it, seeing multiplication is nothing but addition of equals one to another, and division nothing but a subtraction of equals one from another, as often as is possible. So that all ratiocination is comprehended in these two operations of the mind, addition and subtraction."

debates of what kind soever. And when men that think themselves wiser than all others, clamour and demand right reason for judge, yet seek no more, but that things should be determined, by no other men's reason but their own, it is as intolerable in the society of men, as it is in play after trump is turned, to use for trump on every occasion, that suite whereof they have most in their hand. For they do nothing else, that will have every of their passions, as it comes to bear sway in them, to be taken for right reason, and that in their own controversies: bewraying their want of right reason by the claim they lay to it.

The use and end of reason, is not the finding of the sum and truth of one, or a few consequences, remote from the first definitions and settled significations of names, but to begin at these, and proceed from one consequence to another. For there can be no certainty of the last conclusion, without a certainty of all those affirmations and negations, on which it was grounded and inferred. As when a master of a family, in taking an account, casteth up the sums of all the bills of expense into one sum, and not regarding how each bill is summed up, by those that give them in account; nor what it is he pays for; he advantages himself no more, than if he allowed the account in gross, trusting to every of the accountants' skill and honesty: so also in reasoning of all other things, he that takes up conclusions on the trust of authors, and doth not fetch them from the first items in every reckoning, which are the significations of names settled by definitions, loses his labour, and does not know anything, but only believeth.

When a man reckons without the use of words, which may be done in particular things, as when upon the sight of any one thing, we conjecture what was likely to have preceded, or is likely to follow upon it; if that which he thought likely to follow, follows not, or that which he thought likely to have preceded it, hath not preceded it, this is called *error* to which even the most prudent men are subject. But when we reason in words of general signification, and fall upon a general inference which is false, though it be commonly called *error*, it is indeed an *absurdity*, or senseless speech. For error is but deception, in presuming that

somewhat is past, or to come; of which, though it were not past, or not to come, yet there was no impossibility discoverable. But when we make a general assertion, unless it be a true one, the possibility of it is inconceivable. And words whereby we conceive nothing but the sound, are those we call *absurd*, *insignificant*, and *nonsense*. And therefore if a man should talk to me of a *round quadrangle;* or, *accidents of bread in cheese;* or, *immaterial substances;* or of *a free subject; a free will;* or any *free*, but free from being hindered by opposition, I should not say he were in an error, but that his words were without meaning, that is to say, absurd.

I have said before, in the second chapter, that a man did excel all other animals in this faculty, that when he conceived anything whatsoever, he was apt to inquire the consequences of it, and what effects he could do with it. And now I add this other degree of the same excellence, that he can by words reduce the consequences he finds to general rules, called *theorems*, or *aphorisms;* that is, he can reason, or reckon, not only in number, but in all other things, whereof one may be added unto, or subtracted from another.

But this privilege is allayed by another; and that is, by the privilege of absurdity; to which no living creature is subject, but man only. And of men, those are of all most subject to it, that profess philosophy. For it is most true that Cicero saith of them somewhere; that there can be nothing so absurd, but may be found in the books of philosophers. And the reason is manifest. For there is not one of them that begins his ratiocination from the definitions, or explications of the names they are to use; which is a method that hath been used only in geometry; whose conclusions have thereby been made indisputable.

1. The first cause of absurd conclusions I ascribe to the want of method; in that they begin not their ratiocination from definitions; that is, from settled significations of their words; as if they could cast account, without knowing the value of the numeral words, *one*, *two*, and *three*.

And whereas all bodies enter into account upon divers considerations, which I have mentioned in the precedent chapter;

these considerations being diversely named, divers absurdities proceed from the confusion, and unfit connexion of their names into assertions. And therefore,

II. The second cause of absurd assertions, I ascribe to the giving of names of *bodies* to *accidents;* or of *accidents* to *bodies;* as they do that say, *faith is infused*, or *inspired;* when nothing can be *poured*, or *breathed* into anything, but body; and that *extension* is *body;* that *phantasms* are *spirits*, &c.

III. The third I ascribe to the giving of the names of the *accidents* of *bodies without us*, to the *accidents* of our *own bodies;* as they do that say, the *colour is in the body; the sound is in the air*, &c.

IV. The fourth, to the giving of the names of *bodies* to *names*, or *speeches;* as they do that say, that *there be things universal;* that *a living creature is genus*, or *a general thing*, &c.

V. The fifth, to the giving of the names of *accidents* to *names* and *speeches;* as they do that say, *the nature of a thing is its definition; a man's command is his will;* and the like.

VI. The sixth, to the use of metaphors, tropes, and other rhetorical figures, instead of words proper. For though it be lawful to say, for example, in common speech, the *way goeth, or leadeth hither or thither; the proverb says this or that*, whereas ways cannot go, nor proverbs speak; yet in reckoning, and seeking of truth, such speeches are not to be admitted.

VII. The seventh, to names that signify nothing; but are taken up and learned by rote from the schools, as *hypostatical*, *transubstantiate*, *consubstantiate*, *eternal-now*, and the like canting of schoolmen.

To him that can avoid these things it is not easy to fall into any absurdity, unless it be by the length of an account; wherein he may perhaps forget what went before. For all men by nature reason alike, and well, when they have good principles. For who is so stupid, as both to mistake in geometry, and also to persist in it, when another detects his error to him?

By this it appears that reason is not, as sense and memory, born with us; nor gotten by experience only, as prudence is; but attained by industry; first in apt imposing of names; and

secondly by getting a good and orderly method in proceeding from the elements, which are names, to assertions made by connexion of one of them to another; and so to syllogisms, which are the connexions of one assertion to another, till we come to a knowledge of all the consequences of names appertaining to the subject in hand; and that is it, men call SCIENCE.[1] And whereas sense and memory are but knowledge of fact, which is a thing past and irrevocable. *Science* is the knowledge of consequences, and dependence of one fact upon another: by which, out of that we can presently do, we know how to do something else when we will, or the like another time; because when we see how anything comes about, upon what causes, and by what manner; when the like causes come into our power, we see how to make it produce the like effects.

Children therefore are not endued with reason at all, till they have attained the use of speech; but are called reasonable creatures, for the possibility apparent of having the use of reason in time to come. And the most part of men, though they have the use of reasoning a little way, as in numbering to some degree; yet it serves them to little use in common life; in which they govern themselves, some better, some worse, according to their differences of experience, quickness of memory, and inclinations to several ends; but specially according to good or evil fortune, and the errors of one another. For as for *science*, or certain rules of their actions, they are so far from it, that they know not what it is.

[1] Cf. Hobbes, *Elements of Philosophy* (Molesworth, vol. i, ch. vi, p. 66): "METHOD, therefore, in the study of philosophy, *is the shortest way of finding out effects by their known causes, or of causes by their known effects.* But we are then said to know any effect, when we know *that there be causes of the same*, and *in what subject those causes are*, and *in what subject they produce that effect*, and *in what manner they work the same.* And this is the science of causes, or as they call it, of the διότι. All other science, which is called the ὅτι, is either perception by sense, or the imagination, or memory remaining after such perception.

"The first beginnings, therefore, of knowledge, are the phantasms of sense and imagination; and that there be such phantasms we know well enough by nature; but to know why they be, or from what causes they proceed, is the work of ratiocination; which consists in *composition*, and *division* or *resolution.* There is therefore no method by which we find out the causes of things, but is either *compositive* or *resolutive*, or *partly compositive* and *partly resolutive.* And the resolutive is commonly called *analytical* method, as the compositive is called *synthetical.*"

Geometry they have thought conjuring: but for other sciences, they who have not been taught the beginnings and some progress in them, that they may see how they be acquired and generated, are in this point like children, that having no thought of generation, are made believe by the women that their brothers and sisters are not born, but found in the garden.

But yet they that have no *science*, are in better and nobler condition, with their natural prudence, than men, that by misreasoning, or by trusting them that reason wrong, fall upon false and absurd general rules. For ignorance of causes, and of rules, does not set men so far out of their way, as relying on false rules, and taking for causes of what they aspire to, those that are not so, but rather causes of the contrary.

To conclude, the light of human minds is perspicuous words, but by exact definitions first snuffed, and purged from ambiguity; *reason* is the *pace;* increase of *science*, the *way;* and the benefit of mankind, the *end*. And, on the contrary, metaphors, and senseless and ambiguous words, are like *ignes fatui;* and reasoning upon them is wandering amongst innumerable absurdities; and their end, contention and sedition, or contempt.

As much experience, is *prudence;* so, is much science *sapience*. For though we usually have one name of wisdom for them both, yet the Latins did always distinguish between *prudentia* and *sapientia;* ascribing the former to experience, the latter to science. But to make their difference appear more clearly, let us suppose one man endued with an excellent natural use and dexterity in handling his arms; and another to have added to that dexterity, an acquired science, of where he can offend or be offended by his adversary, in every possible posture or guard; the ability of the former, would be to the ability of the latter, as prudence to sapience; both useful, but the latter infallible. But they that, trusting only to the authority of books, follow the blind blindly, are like him that, trusting to the false rules of a master of fence, ventures presumptuously upon an adversary, that either kills or disgraces him.

The signs of science are some, certain and infallible; some, uncertain. Certain, when he that pretendeth the science of any-

thing can teach the same; that is to say, demonstrate the truth thereof perspicuously to another; uncertain, when only some particular events answer to his pretence, and upon many occasions prove so as he says they must. Signs of prudence are all uncertain; because to observe by experience, and remember all circumstances that may alter the success is impossible. But in any business whereof a man has not infallible science to proceed by, to forsake his own natural judgment, and be guided by general sentences read in authors, and subject to many exceptions, is a sign of folly, and generally scorned by the name of pedantry. And even of those men themselves, that in councils of the commonwealth love to show their reading of politics and history, very few do it in their domestic affairs, where their particular interest is concerned; having prudence enough for their private affairs: but in public they study more the reputation of their own wit, than the success of another's business.

CHAPTER VI. OF THE INTERIOR BEGINNINGS OF VOLUNTARY MOTIONS; COMMONLY CALLED THE PASSIONS

There be in animals, two sorts of *motions* peculiar to them: one called *vital;* begun in generation, and continued without interruption through their whole life; such as are the *course* of the *blood*, the *pulse*, the *breathing*, the *concoction*, *nutrition*, *excretion*, &c., to which motions there needs no help of imagination: the other is *animal motion*, otherwise called *voluntary motion;* as to *go*, to *speak*, to *move* any of our limbs in such manner as is first fancied in our minds. That sense is motion in the organs and interior parts of man's body, caused by the action of the things we see, hear, &c.; and that fancy is but the relics of the same motion, remaining after sense, has been already said in the first and second chapters. And because *going*, *speaking*, and the like voluntary motions, depend always upon a precedent thought of *whither*, *which way*, and *what;* it is evident that the imagination is the first internal beginning of all voluntary motion. And although unstudied men do not conceive any

motion at all to be there, where the thing moved is invisible, or the space it is moved in is, for the shortness of it, insensible; yet that doth not hinder but that such motions are. For let a space be never so little, that which is moved over a greater space, whereof that little one is part, must first be moved over that. These small beginnings of motion, within the body of man, before they appear in walking, speaking, striking, and other visible actions, are commonly called ENDEAVOUR.

This endeavour, when it is toward something which causes it, is called APPETITE, or DESIRE; the latter being the general name; and the other oftentimes restrained to signify the desire of food, namely *hunger* and *thirst*. And when the endeavour is fromward something, it is generally called AVERSION. These words, *appetite* and *aversion*, we have from the Latins, and they both of them signify the motions, one of approaching, the other of retiring. So also do the Greek words for the same, which are ὁρμὴ and ἀφορμὴ. For nature itself does often press upon men those truths, which afterwards, when they look for somewhat beyond nature, they stumble at. For the Schools find in mere appetite to go, or move, no actual motion at all: but because some motion they must acknowledge, they call it metaphorical motion; which is but an absurd speech: for though words may be called metaphorical, bodies and motions can not.

That which men desire, they are also said to LOVE, and to HATE those things for which they have aversion. So that desire and love are the same thing; save that by desire, we always signify the absence of the object; by love, most commonly the presence of the same. So also by aversion, we signify the absence; and by hate, the presence of the object.

Of appetites and aversions, some are born with men; as appetite of food, appetite of excretion, and exoneration, which may also and more properly be called aversions, from somewhat they feel in their bodies; and some other appetites, not many. The rest, which are appetites of particular things, proceed from experience, and trial of their effects upon themselves or other men. For of things we know not at all, or believe not to be, we can have no further desire than to taste and try. But aversion we have

for things, not only which we know have hurt us, but also that we do not know whether they will hurt us, or not.

Those things which we neither desire, nor hate, we are said to *contemn;* CONTEMPT being nothing else but an immobility, or contumacy of the heart, in resisting the action of certain things; and proceeding from that the heart is already moved otherwise, by other more potent objects; or from want of experience of them.

And because the constitution of a man's body is in continual mutation, it is impossible that all the same things should always cause in him the same appetites and aversions: much less can all men consent, in the desire of almost any one and the same object.

But whatsoever is the object of any man's appetite or desire, that is it which he for his part calleth *good:* and the object of his hate and aversion, *evil;* and of his contempt, *vile* and *inconsiderable.* For these words of good, evil, and contemptible, are ever used with relation to the person that useth them: there being nothing simply and absolutely so; nor any common rule of good and evil, to be taken from the nature of the objects themselves; but from the person of the man, where there is no commonwealth; or, in a commonwealth, from the person that representeth it; or from an arbitrator or judge, whom men disagreeing shall by consent set up, and make his sentence the rule thereof.

The Latin tongue has two words, whose significations approach to those of good and evil; but are not precisely the same; and those are *pulchrum* and *turpe.* Whereof the former signifies that, which by some apparent signs promiseth good; and the latter, that which promiseth evil. But in our tongue we have not so general names to express them by. But for *pulchrum* we say in some things, *fair;* in others, *beautiful*, or *handsome*, or *gallant*, or *honourable*, or *comely*, or *amiable;* and for *turpe*, *foul*, *deformed*, *ugly*, *base*, *nauseous*, and the like, as the subject shall require; all which words, in their proper places, signify nothing else but the *mien* or countenance, that promiseth good and evil. So that of good there be three kinds; good in the promise, that is *pulchrum;* good in effect, as the end desired, which is called

jucundum, delightful; and good as the means, which is called *utile, profitable;* and as many of evil: for *evil* in promise, is that they call *turpe;* evil in effect, and end, is *molestum, unpleasant, troublesome;* and evil in the means, *inutile, unprofitable, hurtful.*

As, in sense, that which is really within us, is, as I have said before, only motion, caused by the action of external objects, but in apparence; to the sight, light and colour; to the ear, sound; to the nostril, odour, &c.: so, when the action of the same object is continued from the eyes, ears, and other organs to the heart, the real effect there is nothing but motion, or endeavour; which consisteth in appetite, or aversion, to or from the object moving. But the apparence, or sense of that motion, is that we either call *delight* or *trouble of mind.*

This motion, which is called appetite, and for the apparence of it *delight* and *pleasure,* seemeth to be a corroboration of vital motion, and a help thereunto; and therefore such things as caused delight were not improperly called *jucunda, à juvando,* from helping or fortifying; and the contrary *molesta, offensive,* from hindering, and troubling the motion vital.

Pleasure, therefore, or *delight* is the apparence, or sense of good; and *molestation* or *displeasure,* the apparence or sense of evil. And consequently all appetite, desire, and love, is accompanied with some delight more or less; and all hatred and aversion, with more or less displeasure and offence.

Of pleasures or delights, some arise from the sense of an object present; and those may be called *pleasure of sense;* the word *sensual,* as it is used by those only that condemn them, having no place till there be laws. Of this kind are all onerations and exonerations of the body; as also all that is pleasant, in the *sight, hearing, smell, taste,* or *touch.* Others arise from the expectation, that proceeds from foresight of the end, or consequence of things; whether those things in the sense please or displease. And these are *pleasures of the mind* of him that draweth those consequences, and are generally called JOY. In the like manner, displeasures are some in the sense, and called PAIN; others in the expectation of consequences, and are called GRIEF.

These simple passions called *appetite, desire, love, aversion,*

hate, *joy*, and *grief*, have their names for divers considerations diversified. As first, when they one succeed another, they are diversely called from the opinion men have of the likelihood of attaining what they desire. Secondly, from the object loved or hated. Thirdly, from the consideration of many of them together. Fourthly, from the alteration or succession itself.

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CHAPTER XIII. OF THE NATURAL CONDITION OF MANKIND AS CONCERNING THEIR FELICITY AND MISERY

Nature hath made men so equal, in the faculties of the body, and mind; as that though there be found one man sometimes manifestly stronger in body, or of quicker mind than another, yet when all is reckoned together, the difference between man and man, is not so considerable, as that one man can thereupon claim to himself any benefit to which another may not pretend, as well as he. For as to the strength of body, the weakest has strength enough to kill the strongest, either by secret machination, or by confederacy with others, that are in the same danger with himself.

And as to the faculties of the mind, setting aside the arts grounded upon words, and especially that skill of proceeding upon general and infallible rules, called science; which very few have, and but in few things; as being not a native faculty born with us; nor attained, as prudence, while we look after somewhat else, I find yet a greater equality amongst men than that of strength. For prudence, is but experience; which equal time, equally bestows on all men, in those things they equally apply themselves unto. That which may perhaps make such equality incredible, is but a vain conceit of one's own wisdom, which almost all men think they have in a greater degree than the vulgar; that is, than all men but themselves, and a few others, whom by fame, or for concurring with themselves, they approve. For such is the nature of men, that howsoever they may acknowledge many others to be more witty, or more eloquent, or more learned:

yet they will hardly believe there be many so wise as themselves; for they see their own wit at hand, and other men's at a distance. But this proveth rather that men are in that point equal, than unequal. For there is not ordinarily a greater sign of the equal distribution of anything, than that every man is contented with his share.

From this equality of ability, ariseth equality of hope in the attaining of our ends. And therefore if any two men desire the same thing, which nevertheless they cannot both enjoy, they become enemies; and in the way to their end, which is principally their own conservation, and sometimes their delectation only, endeavour to destroy or subdue one another. And from hence it comes to pass, that where an invader hath no more to fear, than another man's single power; if one plant, sow, build, or possess a convenient seat, others may probably be expected to come prepared with forces united, to dispossess, and deprive him, not only of the fruit of his labour, but also of his life or liberty. And the invader again is in the like danger of another.

And from this diffidence of one another, there is no way for any man to secure himself, so reasonable as anticipation; that is, by force, or wiles, to master the persons of all men he can, so long, till he see no other power great enough to endanger him: and this is no more than his own conservation requireth, and is generally allowed. Also because there be some, that taking pleasure in contemplating their own power in the acts of conquest, which they pursue farther than their security requires; if others, that otherwise would be glad to be at ease within modest bounds, should not by invasion increase their power, they would not be able, long time, by standing only on their defence, to subsist. And by consequence, such augmentation of dominion over men being necessary to a man's conservation, it ought to be allowed him.

Again, men have no pleasure, but on the contrary a great deal of grief, in keeping company, where there is no power able to overawe them all. For every man looketh that his companion should value him, at the same rate he sets upon himself: and upon all signs of contempt, or undervaluing, naturally endeavours

as far as he dares (which amongst them that have no common power to keep them in quiet, is far enough to make them destroy each other), to extort a greater value from his contemners, by damage; and from others, by the example.

So that in the nature of man, we find three principal causes of quarrel. First, competition; secondly, diffidence; thirdly, glory.

The first, maketh men invade for gain; the second, for safety; and the third, for reputation. The first use violence, to make themselves masters of other men's persons, wives, children, and cattle; the second, to defend them; the third, for trifles, as a word, a smile, a different opinion, and any other sign of undervalue, either direct in their persons, or by reflection in their kindred, their friends, their nation, their profession, or their name.

Hereby it is manifest, that during the time men live without a common power to keep them all in awe, they are in that condition which is called war; and such a war, as is of every man, against every man. For WAR, consisteth not in battle only, or the act of fighting; but in a tract of time, wherein the will to contend by battle is sufficiently known: and therefore the notion of *time*, is to be considered in the nature of war, as it is in the nature of weather. For as the nature of foul weather, lieth not in a shower or two of rain, but in an inclination thereto of many days together; so the nature of war, consisteth not in actual fighting, but in the known disposition thereto, during all the time there is no assurance to the contrary. All other time is PEACE.

Whatsoever therefore is consequent to a time of war, where every man is enemy to every man, the same is consequent to the time wherein men live without other security, than what their own strength, and their own invention shall furnish them withal. In such condition, there is no place for industry, because the fruit thereof is uncertain, and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and, which is worst of all, continual fear.

and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.

It may seem strange to some man, that has not well weighed these things, that Nature should thus dissociate, and render men apt to invade and destroy one another: and he may therefore, not trusting to this inference made from the passions, desire perhaps to have the same confirmed by experience. Let him therefore consider with himself, when taking a journey, he arms himself, and seeks to go well accompanied; when going to sleep he locks his doors; when even in his house, he locks his chests; and this when he knows there be laws, and public officers, armed, to revenge all injuries shall be done him; what opinion he has of his fellow-subjects, when he rides armed; of his fellow-citizens, when he locks his doors; and of his children and servants, when he locks his chests. Does he not there as much accuse mankind by his actions, as I do by my words? But neither of us accuse man's nature in it. The desires, and other passions of man, are in themselves no sin. No more are the actions, that proceed from those passions, till they know a law that forbids them: which till laws be made they cannot know, nor can any law be made, till they have agreed upon the person that shall make it.

It may peradventure be thought, there was never such a time nor condition of war as this; and I believe it was never generally so, over all the world: but there are many places where they live so now. For the savage people in many places of America, except the government of small families, the concord whereof dependeth on natural lust, have no government at all, and live at this day in that brutish manner, as I said before. Howsoever, it may be perceived what manner of life there would be, where there were no common power to fear, by the manner of life, which men that have formerly lived under a peaceful government, use to degenerate into, in a civil war.

But though there had never been any time, wherein particular men were in a condition of war one against another; yet in all times, kings, and persons of sovereign authority, because of their independency, are in continual jealousies, and in the state and posture of gladiators; having their weapons pointing, and their

eyes fixed on one another; that is, their forts, garrisons, and guns upon the frontiers of their kingdoms; and continual spies upon their neighbours; which is a posture of war. But because they uphold thereby, the industry of their subjects; there does not follow from it that misery, which accompanies the liberty of particular men.

To this war of every man, against every man, this also is consequent; that nothing can be unjust. The notions of right and wrong, justice and injustice, have there no place. Where there is no common power, there is no law: where no law, no injustice. Force, and fraud, are in war the two cardinal virtues. Justice, and injustice are none of the faculties neither of the body nor mind. If they were, they might be in a man that were alone in the world, as well as his senses, and passions. They are qualities, that relate to men in society, not in solitude. It is consequent also to the same condition, that there be no propriety, no dominion, no *mine* and *thine* distinct; but only that to be every man's, that he can get; and for so long, as he can keep it. And thus much for the ill condition, which man by mere nature is actually placed in; though with a possibility to come out of it, consisting partly in the passions, partly in his reason.

The passions that incline men to peace, are fear of death: desire of such things as are necessary to commodious living; and a hope by their industry to obtain them. And reason suggesteth convenient articles of peace, upon which men may be drawn to agreement. These articles, are they, which otherwise are called the Laws of Nature: whereof I shall speak more particularly, in the two following chapters.

CHAPTER XIV. OF THE FIRST AND SECOND NATURAL LAWS, AND OF CONTRACTS

The RIGHT OF NATURE, which writers commonly call *jus naturale*, is the liberty each man hath, to use his own power, as he will himself, for the preservation of his own nature; that is to say, of his own life; and consequently, of doing anything which

in his own judgment and reason he shall conceive to be the aptest means thereunto.

By LIBERTY, is understood, according to the proper signification of the word, the absence of external impediments: which impediments, may oft take away part of a man's power to do what he would; but cannot hinder him from using the power left him, according as his judgment and reason shall dictate to him.

A LAW OF NATURE, *lex naturalis*, is a precept or general rule, found out by reason, by which a man is forbidden to do that, which is destructive of his life, or taketh away the means of preserving the same; and to omit that, by which he thinketh it may be best preserved. For though they that speak of this subject use to confound *jus* and *lex*, *right* and *law:* yet they ought to be distinguished; because RIGHT consisteth in liberty to do, or to forbear; whereas LAW, determineth, and bindeth to one of them: so that law, and right, differ as much as obligation, and liberty; which in one and the same matter are inconsistent.

And because the condition of man, as hath been declared in the precedent chapter, is a condition of war of every one against every one; in which case every one is governed by his own reason; and there is nothing he can make use of, that may not be a help unto him in preserving his life against his enemies; it followeth, that in such a condition, every man has a right to everything; even to one another's body. And therefore, as long as this natural right of every man to everything endureth, there can be no security to any man, how strong or wise soever he be, of living out the time which Nature ordinarily alloweth men to live. And consequently it is a precept, or general rule of reason, *that every man ought to endeavour peace, as far as he has hope of obtaining it; and when he cannot obtain it, that he may seek, and use, all helps and advantages of war.* The first branch of which rule containeth the first, and fundamental law of Nature; which is *to seek peace, and follow it.* The second, the sum of the right of Nature: which is, *by all means we can, to defend ourselves.*

From this fundamental law of Nature, by which men are commanded to endeavour peace, is derived this second law; *that a*

man be willing, when others are so too, as far-forth, as for peace, and defence of himself he shall think it necessary to lay down this right to all things; and be contented with so much liberty against other men as he would allow other men against himself. For as long as every man holdeth this right of doing anything he liketh; so long are all men in the condition of war. But if other men will not lay down their right, as well as he; then there is no reason for any one to divest himself of his: for that were to expose himself to prey, which no man is bound to, rather than to dispose himself to peace. This is that law of the Gospel; *whatsoever you require that others should do to you, that do ye to them.* And that law of all men, *quod tibi fieri non vis, alteri ne feceris.*

To *lay down* a man's *right* to anything, is to *divest* himself of the *liberty* of hindering another of the benefit of his own right to the same. For he that renounceth, or passeth away his right, giveth not to any other man a right which he had not before; because there is nothing to which every man had not right by Nature: but only standeth out of his way, that he may enjoy his own original right, without hindrance from him; not without hindrance from another. So that the effect which redoundeth to one man, by another man's defect of right is but so much diminution of impediments to the use of his own right original.

Right is laid aside, either by simply renouncing it; or by transferring it to another. By *simply* RENOUNCING; when he cares not to whom the benefit thereof redoundeth. By TRANSFERRING; when he intendeth the benefit thereof to some certain person or persons. And when a man hath in either manner abandoned, or granted away his right; then is he said to be OBLIGED, or BOUND, not to hinder those, to whom such right is granted, or abandoned, from the benefit of it: and that he *ought*, and it is his DUTY, not to make void that voluntary act of his own: and that such hindrance is INJUSTICE, and INJURY, as being *sine jure;* the right being before renounced, or transferred. So that *injury*, or *injustice*, in the controversies of the world is somewhat like to that, which in the disputations of scholars is called *absurdity*. For as it is there called an absurdity, to contradict what one maintained in the beginning: so in the world it is called injustice, and

injury, voluntarily to undo that, which from the beginning he had voluntarily done. The way by which a man either simply renounceth, or transferreth his right, is a declaration, or signification, by some voluntary and sufficient sign, or signs, that he doth so renounce, or transfer; or hath so renounced, or transferred the same, to him that accepteth it. And these signs are either words only, or actions only: or, as it happeneth most often, both words and actions. And the same are the BONDS, by which men are bound, and obliged: bonds, that have their strength, not from their own nature, for nothing is more easily broken than a man's word, but from fear of some evil consequence upon the rupture.

Whensoever a man transferreth his right, or renounceth it; it is either in consideration of some right reciprocally transferred to himself; or for some other good he hopeth for thereby. For it is a voluntary act; and of the voluntary acts of every man, the object is some *good to himself.* And therefore there be some rights, which no man can be understood by any words, or other signs, to have abandoned, or transferred. As first a man cannot lay down the right of resisting them, that assault him by force, to take away his life; because he cannot be understood to aim thereby, at any good to himself. The same may be said of wounds, and chains, and imprisonment; both because there is no benefit consequent to such patience; as there is to the patience of suffering another to be wounded, or imprisoned: as also because a man cannot tell, when he seeth men proceed against him by violence, whether they intend his death or not. And lastly the motive and end for which this renouncing and transferring of right is introduced, is nothing else but the security of a man's person, in his life, and in the means of so preserving life, as not to be weary of it. And therefore if a man by words, or other signs, seem to despoil himself of the end, for which those signs were intended; he is not to be understood as if he meant it, or that it was his will; but that he was ignorant of how such words and actions were to be interpreted.

The mutual transferring of right is that which men call CONTRACT.

There is difference between transferring of right to the thing;

and transferring, or tradition, that is delivery of the thing itself. For the thing may be delivered together with the translation of the right; as in buying and selling with ready-money; or exchange of goods, or lands; and it may be delivered some time after.

Again, one of the contractors, may deliver the thing contracted for on his part, and leave the other to perform his part at some determinate time after, and in the meantime be trusted; and then the contract on his part is called PACT, or COVENANT: or both parts may contract now, to perform hereafter; in which cases, he that is to perform in time to come, being trusted, his performance is called *keeping of promise*, or faith; and the failing of performance, if it be voluntary, *violation of faith*.

When the transferring of right, is not mutual: but one of the parties transferreth, in hope to gain thereby friendship, or service from another, or from his friends; or in hope to gain the reputation of charity; or magnanimity; or to deliver his mind from the pain of compassion; or in hope of reward in heaven; this is not contract, but GIFT, FREE GIFT, GRACE: which words signify one and the same thing.

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CHAPTER XV. OF OTHER LAWS OF NATURE

From that law of Nature, by which we are obliged to transfer to another, such rights, as being retained, hinder the peace of mankind, there followeth a third; which is this, *that men perform their covenants made:* without which, covenants are in vain, and but empty words; and the right of all men to all things remaining, we are still in the condition of war.

And in this law of Nature, consisteth the fountain and original of JUSTICE. For where no covenant hath preceded, there hath no right been transferred, and every man has right to everything; and consequently, no action can be unjust. But when a covenant is made, then to break it is *unjust:* and the definition of INJUSTICE, is no other than *the not performance of covenant*. And whatsoever is not unjust, is *just*.

But because covenants of mutual trust, where there is a fear

of not performance on either part, as hath been said in the former chapter, are invalid; though the original of justice be the making of covenants; yet injustice actually there can be none, till the cause of such fear be taken away; which while men are in the natural condition of war, cannot be done. Therefore before the names of just, and unjust can have place, there must be some coercive power, to compel men equally to the performance of their covenants, by the terror of some punishment, greater than the benefit they expect by the breach of their covenant; and to make good that propriety, which by mutual contract men acquire, in recompense of the universal right they abandon: and such power there is none before the erection of a commonwealth. And this is also to be gathered out of the ordinary definition of justice in the Schools: for they say, that *justice is the constant will of giving to every man his own.* And therefore where there is no *own,* that is no propriety, there is no injustice; and where there is no coercive power erected, that is, where there is no commonwealth, there is no propriety; all men having right to all things: therefore where there is no commonwealth, there nothing is unjust. So that the nature of justice, consisteth in keeping of valid covenants: but the validity of covenants begins not but with the constitution of a civil power, sufficient to compel men to keep them; and then it is also that propriety begins.

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As justice dependeth on antecedent covenant; so does GRATITUDE depend on antecedent grace; that is to say, antecedent free gift: and is the fourth law of Nature; which may be conceived in this form, *that a man which receiveth benefit from another of mere grace, endeavour that he which giveth it, have no reasonable cause to repent him of his good will.* For no man giveth, but with intention of good to himself; because gift is voluntary; and of all voluntary acts, the object is to every man his own good; of which if men see they shall be frustrated, there will be no beginning of benevolence, or trust, nor consequently of mutual help; nor of reconciliation of one man to another; and therefore they are to remain still in the condition of *war;* which is contrary to the first and fundamental law of Nature, which commandeth

men to *seek peace.* The breach of this law is called *ingratitude,* and hath the same relation to grace, that injustice hath to obligation by covenant.

A fifth law of Nature is COMPLAISANCE; that is to say, *that every man strive to accommodate himself to the rest.* For the understanding whereof, we may consider, that there is in men's aptness to society, a diversity of nature, rising from their diversity of affections; not unlike to that we see in stones brought together for building of an edifice. For as that stone which by the asperity, and irregularity of figure, takes more room from others than itself fills; and for the hardness, cannot be easily made plain, and thereby hindereth the building, is by the builders cast away as unprofitable and troublesome: so also, a man that by asperity of nature, will strive to retain those things which to himself are superfluous, and to others necessary; and for the stubbornness of his passions, cannot be corrected, is to be left, or cast out of society, as cumbersome thereunto. For seeing every man, not only by right, but also by necessity of nature, is supposed to endeavour all he can, to obtain that which is necessary for his conservation; he that shall oppose himself against it, for things superfluous, is guilty of the war that thereupon is to follow; and therefore doth that, which is contrary to the fundamental law of Nature, which commandeth *to seek peace.* The observers of this law, may be called SOCIABLE, the Latins call them *commodi;* the contrary, *stubborn, insociable, froward, intractable.*

A sixth law of Nature is this, *that upon caution of the future time, a man ought to pardon the offences past of them that repenting, desire it.* For PARDON, is nothing but granting of peace; which though granted to them that persevere in their hostility, be not peace, but fear; yet not granted to them that give caution of the future time, is sign of an aversion to peace; and therefore contrary to the law of Nature.

A seventh is, *that in revenges,* that is, retribution of evil for evil, *men look not at the greatness of the evil past, but the greatness of the good to follow.* Whereby we are forbidden to inflict punishment with any other design, than for correction of the offender, or direction of others. For this law is consequent to the next

before it, that commandeth pardon, upon security of the future time. Besides, revenge, without respect to the example, and profit to come, is a triumph or glorying in the hurt of another, tending to no end; for the end is always somewhat to come; and glorying to no end, is vain-glory, and contrary to reason, and to hurt without reason, tendeth to the introduction of war; which is against the law of Nature; and is commonly styled by the name of *cruelty*.

And because all signs of hatred, or contempt, provoke to fight; insomuch as most men choose rather to hazard their life, than not to be revenged; we may in the eighth place, for a law of nature, set down this precept, *that no man by deed, word, countenance, or gesture, declare hatred, or contempt of another.* The breach of which law is commonly called *contumely*.

The question who is the better man, has no place in the condition of mere nature; where, as has been shewn before, all men are equal. The inequality that now is, has been introduced by the laws civil. I know that Aristotle in the first book of his *Politics*, for a foundation of his doctrine, maketh men by nature, some more worthy to command, meaning the wiser sort, such as he thought himself to be for his philosophy; others to serve, meaning those that had strong bodies, but were not philosophers as he; as if master and servant were not introduced by consent of men, but by difference of wit; which is not only against reason, but also against experience. For there are very few so foolish, that had not rather govern themselves, than be governed by others: nor when the wise in their own conceit, contend by force, with them who distrust their own wisdom, do they always, or often, or almost at any time, get the victory. If Nature therefore have made them equal, that equality is to be acknowledged: or if nature have made men unequal; yet because men that think themselves equal, will not enter into conditions of peace, but upon equal terms, such equality must be admitted. And therefore for the ninth law of Nature, I put this, *that every man acknowledge another for his equal by nature.* The breach of this precept is *pride*.

On this law dependeth another, *that at the entrance into con*

ditions of peace, no man require to reserve to himself any right, which he is not content should be reserved to every one of the rest. As it is necessary for all men that seek peace, to lay down certain rights of nature; that is to say, not to have liberty to do all they list: so is it necessary for man's life, to retain some, as right to govern their own bodies; enjoy air, water, motion, ways to go from place to place; and all things else, without which a man cannot live, or not live well. If in this case, at the making of peace, men require for themselves that which they would not have to be granted to others, they do contrary to the precedent law, that commandeth the acknowledgment of natural equality, and therefore also against the law of Nature. The observers of this law are those we call *modest,* and the breakers *arrogant* men. The Greeks call the violation of this law πλεονεξία, that is, a desire of more than their share.

Also if *a man be trusted to judge between man and man,* it is a precept of the law of Nature, *that he deal equally between them.* For without that, the controversies of men cannot be determined but by war. He therefore that is partial in judgment, doth what in him lies, to deter men from the use of judges and arbitrators; and consequently, against the fundamental law of Nature, is the cause of war.

The observance of this law, from the equal distribution to each man, of that which in reason belongeth to him, is called EQUITY, and, as I have said before, distributive justice: the violation, *acception of persons,* προσωποληψία.

And from this followeth another law, *that such things as cannot be divided, be enjoyed in common, if it can be; and if the quantity of the thing permit, without stint; otherwise proportionably to the number of them that have right.* For otherwise the distribution is unequal, and contrary to equity.

But some things there be, that can neither be divided, nor enjoyed in common. Then, the law of Nature, which prescribeth equity, requireth *that the entire right, or else, making the use alternate, the first possession, be determined by lot.* For equal distribution, is of the law of Nature, and other means of equal distribution cannot be imagined.

Of *lots* there be two sorts, *arbitrary*, and *natural*. Arbitrary, is that which is agreed on by the competitors: natural, is either *primogeniture*, which the Greeks call κληρονομία, which signifies, *given by lot;* or *first seizure*.

And therefore those things which cannot be enjoyed in common, nor divided, ought to be adjudged to the first possessor; and in some cases to the first born, as acquired by lot.

It is also a law of Nature, *that all men that mediate peace, be allowed safe conduct*. For the law that commandeth peace, as the *end*, commandeth intercession, as the *means;* and to intercession the means is safe conduct.

And because, though men be never so willing to observe these laws, there may nevertheless arise questions concerning a man's action; first, whether it were done, or not done; secondly, if done, whether against the law, or not against the law; the former whereof, is called a question *of fact;* the latter a question *of right*, therefore unless the parties to the question covenant mutually to stand to the sentence of another, they are as far from peace as ever. This other to whose sentence they submit is called an ARBITRATOR. And therefore it is of the law of Nature, *that they that are at controversy, submit their right to the judgment of an arbitrator*.

And seeing every man is presumed to do all things in order to his own benefit, no man is a fit arbitrator in his own cause; and if he were never so fit; yet equity allowing to each party equal benefit, if one be admitted to be judge, the other is to be admitted also; and so the controversy, that is, the cause of war, remains against the law of Nature.

For the same reason no man in any cause ought to be received for arbitrator, to whom greater profit, or honour, or pleasure apparently ariseth out of the victory of one party than of the other: for he hath taken, though an unavoidable bribe, yet a bribe; and no man can be obliged to trust him. And thus also the controversy, and the condition of war remaineth, contrary to the law of Nature.

And in a controversy of *fact*, the judge being to give no more credit to one than to the other, if there be no other argu-

ments, must give credit to a third; or to a third and fourth; or more: for else the question is undecided, and left to force, contrary to the law of Nature.

These are the laws of Nature, dictating peace, for a means of the conservation of men in multitudes; and which only concern the doctrine of civil society. There be other things tending to the destruction of particular men; as drunkenness, and all other parts of intemperance; which may therefore also be reckoned amongst those things which the law of Nature hath forbidden; but are not necessary to be mentioned, nor are pertinent enough to this place.

And though this may seem too subtle a deduction of the laws of Nature to be taken notice of by all men; whereof the most part are too busy in getting food, and the rest too negligent to understand; yet to leave all men inexcusable, they have been contracted into one easy sum, intelligible even to the meanest capacity; and that is, *Do not that to another, which thou wouldst not have done to thyself;* which sheweth him, that he has no more to do in learning the laws of nature, but, when weighing the actions of other men with his own, they seem too heavy, to put them into the other part of the balance, and his own into their place, that his own passions, and self-love, may add nothing to the weight; and then there is none of these laws of Nature that will not appear unto him very reasonable.

The laws of Nature oblige *in foro interno;* that is to say, they bind to a desire they should take place: but *in foro externo;* that is, to the putting them in act, not always. For he that should be modest, and tractable, and perform all he promises, in such time and place where no man else should do so, should but make himself a prey to others, and procure his own certain ruin, contrary to the ground of all laws of Nature, which tend to nature's preservation. And again, he that having sufficient security, that others shall observe the same laws towards him, observes them not himself, seeketh not peace, but war; and consequently the destruction of his nature by violence.

And whatsoever laws bind *in foro interno*, may be broken, not only by a fact contrary to the law, but also by a fact according

to it, in case a man think it contrary. For though his action in this case be according to the law, yet his purpose was against the law; which, where the obligation is *in foro interno*, is a breach.

The laws of Nature are immutable and eternal; for injustice, ingratitude, arrogance, pride, iniquity, acception of persons, and the rest, can never be made lawful. For it can never be that war shall preserve life, and peace destroy it.

The same laws, because they oblige only to a desire and endeavour, I mean an unfeigned and constant endeavour, are easy to be observed. For in that they require nothing but endeavour, he that endeavoureth their performance, fulfilleth them; and he that fulfilleth the law, is just.

And the science of them is the true and only moral philosophy. For moral philosophy is nothing else but the science of what is *good*, and *evil*, in the conversation and society of mankind. *Good*, and *evil*, are names that signify our appetites, and aversions; which in different tempers, customs, and doctrines of men, are different: and divers men, differ not only in their judgment, on the senses of what is pleasant, and unpleasant to the taste, smell, hearing, touch, and sight; but also of what is conformable or disagreeable to reason, in the actions of common life. Nay, the same man, in divers times, differs from himself; and one time praiseth, that is, calleth good, what another time he dispraiseth, and calleth evil: from whence arise disputes, controversies, and at last war. And therefore so long as a man is in the condition of mere nature, which is a condition of war, as private appetite is the measure of good and evil: and consequently all men agree on this, that peace is good, and therefore also the way or means of peace, which, as I have shewed before, are *justice*, *gratitude*, *modesty*, *equity*, *mercy*, and the rest of the laws of Nature, are good; that is to say, *moral virtues;* and their contrary *vices*, evil. Now the science of virtue and vice, is moral philosophy; and therefore the true doctrine of the laws of Nature is the true moral philosophy. But the writers of moral philosophy, though they acknowledge the same virtues and vices; yet not seeing wherein consisted their goodness; nor that they come to be praised, as the means of peaceable, sociable, and comfortable living, place

them in a mediocrity of passions: as if not the cause, but the degree of daring, made fortitude; or not the cause, but the quantity of a gift, made liberality.

These dictates of reason, men used to call by the name of laws, but improperly: for they are but conclusions, or theorems concerning what conduceth to the conservation and defence of themselves; whereas law, properly, is the word of him that by right hath command over others. But yet if we consider the same theorems, as delivered in the word of God, that by right commandeth all things; then are they properly called laws.

Part II. — OF COMMONWEALTH

CHAPTER XVII. OF THE CAUSES, GENERATION, AND DEFINITION OF A COMMONWEALTH

The final cause, end, or design of men, who naturally love liberty, and dominion over others, in the introduction of that restraint upon themselves, in which we see them live in commonwealths, is the foresight of their own preservation, and of a more contented life thereby; that is to say, of getting themselves out from that miserable condition of war, which is necessarily consequent, as hath been shown in chapter xiii, to the natural passions of men, when there is no visible power to keep them in awe, and tie them by fear of punishment to the performance of their covenants, and observation of those laws of Nature set down in the fourteenth and fifteenth chapters.

For the laws of Nature, as *justice*, *equity*, *modesty*, *mercy*, and, in sum, *doing to others, as we would be done to*, of themselves, without the terror of some power, to cause them to be observed, are contrary to our natural passions, that carry us to partiality, pride, revenge, and the like. And covenants, without the sword, are but words, and of no strength to secure a man at all. Therefore notwithstanding the laws of nature, which every one hath then kept, when he has the will to keep them, when he can do it

safely, if there be no power erected, or not great enough for our security, every man will, and may lawfully rely on his own strength and art, for caution against all other men. And in all places, where men have lived by small families, to rob and spoil one another, has been a trade, and so far from being reputed against the law of Nature, that the greater spoils they gained, the greater was their honour; and men observed no other laws therein, but the laws of honour; that is, to abstain from cruelty, leaving to men their lives, and instruments of husbandry. And as small families did then; so now do cities and kingdoms, which are but greater families, for their own security, enlarge their dominions, upon all pretences of danger, and fear of invasion, or assistance that may be given to invaders, and endeavour as much as they can, to subdue, or weaken their neighbours, by open force and secret arts, for want of other caution, justly; and are remembered for it in after ages with honour.

Nor is it the joining together of a small number of men, that gives them this security; because in small numbers, small additions on the one side or the other, make the advantage of strength so great, as is sufficient to carry the victory; and therefore gives encouragement to an invasion. The multitude sufficient to confide in for our security, is not determined by any certain number, but by comparison with the enemy we fear; and is then sufficient when the odds of the enemy is not of so visible and conspicuous moment, to determine the event of war, as to move him to attempt.

And be there never so great a multitude; yet if their actions be directed according to their particular judgments, and particular appetites, they can expect thereby no defence, nor protection, neither against a common enemy, nor against the injuries of one another. For being distracted in opinions concerning the best use and application of their strength, they do not help but hinder one another; and reduce their strength by mutual opposition to nothing: whereby they are easily, not only subdued by a very few that agree together; but also when there is no common enemy, they make war upon each other, for their particular interests. For if we could suppose a great multitude of men to consent in the observation of justice, and other laws of Nature,

without a common power to keep them all in awe; we might as well suppose all mankind to do the same; and then there neither would be, nor need to be any civil government or commonwealth at all; because there would be peace without subjection.

Nor is it enough for the security, which men desire should last all the time of their life, that they be governed, and directed by one judgment, for a limited time; as in one battle, or one war. For though they obtain a victory by their unanimous endeavour against a foreign enemy; yet afterwards, when either they have no common enemy, or he that by one part is held for an enemy, is by another part held for a friend, they must needs by the difference of their interests dissolve, and fall again into a war amongst themselves.

It is true, that certain living creatures, as bees and ants, live sociably one with another, which are therefore by Aristotle numbered amongst political creatures; and yet have no other direction, than their particular judgments and appetites; nor speech, whereby one of them can signify to another, what he thinks expedient for the common benefit: and therefore some man may perhaps desire to know, why mankind cannot do the same. To which I answer,

First, that men are continually in competition for honour and dignity, which these creatures are not; and consequently amongst men there ariseth on that ground, envy and hatred, and finally war; but amongst these not so.

Secondly, that amongst these creatures, the common good differeth not from the private; and being by nature inclined to their private, they procure thereby the common benefit. But man, whose joy consisteth in comparing himself with other men, can relish nothing but what is eminent.

Thirdly, that these creatures, having not, as man, the use of reason, do not see, nor think they see any fault, in the administration of their common business; whereas amongst men, there are very many that think themselves wiser, and abler to govern the public, better than the rest; and these strive to reform and innovate, one this way, another that way; and thereby bring it into distraction and civil war.

Fourthly, that these creatures, though they have some use of voice, in making known to one another their desires and other affections; yet they want that art of words, by which some men can represent to others, that which is good, in the likeness of evil; and evil, in the likeness of good; and augment, or diminish the apparent greatness of good and evil; discontenting men, and troubling their peace at their pleasure.

Fifthly, irrational creatures cannot distinguish between *injury*, and *damage;* and therefore as long as they be at ease, they are not offended with their fellows: whereas man is then most troublesome, when he is most at ease; for then it is that he loves to shew his wisdom, and control the actions of them that govern the commonwealth.

Lastly, the agreement of these creatures is natural; that of men, is by covenant only, which is artificial: and therefore it is no wonder if there be somewhat else required, besides covenant, to make their agreement constant and lasting; which is a common power, to keep them in awe, and to direct their actions to the common benefit.

The only way to erect such a common power, as may be able to defend them from the invasion of foreigners, and the injuries of one another, and thereby to secure them in such sort, as that by their own industry, and by the fruits of the earth, they may nourish themselves, and live contentedly; is, to confer all their power and strength upon one man, or upon one assembly of men, that may reduce all their wills, by plurality of voices, unto one will: which is as much as to say, to appoint one man, or assembly of men, to bear their person; and every one to own, and acknowledge himself to be author of whatsoever he that so beareth their person, shall act, or cause to be acted, in those things which concern the common peace and safety; and therein to submit their wills, every one to his will, and their judgments, to his judgment. This is more than consent, or concord; it is a real unity of them all, in one and the same person, made by covenant of every man with every man, in such manner, as if every man should say to every man, *I authorize and give up my right of governing myself, to this man, or to this assembly of men, on this*

condition, that thou give up thy right to him, and authorize all his actions in like manner. This done, the multitude so united in one person is called a COMMONWEALTH, in Latin CIVITAS. This is the generation of that great LEVIATHAN, or rather, to speak more reverently, of that *mortal god,* to which we owe under the *immortal God,* our peace and defence. For by this authority, given him by every particular man in the Commonwealth, he hath the use of so much power and strength conferred on him, that by terror thereof, he is enabled to perform the wills of them all, to peace at home, and mutual aid against their enemies abroad. And in him consisteth the essence of the Commonwealth; which, to define it, is *one person, of whose acts a great multitude, by mutual covenants one with another, have made themselves every one the author, to the end he may use the strength and means of them all, as he shall think expedient, for their peace and common defence.*

And he that carrieth this person is called SOVEREIGN, and said to have *sovereign power;* and every one besides, his SUBJECT.

The attaining to this sovereign power is by two ways. One, by natural force; as when a man maketh his children to submit themselves, and their children, to his government, as being able to destroy them if they refuse; or by war subdueth his enemies to his will, giving them their lives on that condition. The other is, when men agree amongst themselves to submit to some man or assembly of men, voluntarily, on confidence to be protected by him against all others. This latter may be called a political commonwealth, or commonwealth by *institution;* and the former, a commonwealth by *acquisition.*

RENÉ DESCARTES
(1596–1650)

DISCOURSE ON METHOD

Translated from the French * *by*
JOHN VEITCH

PART I

GOOD SENSE is, of all things among men, the most equally distributed; for every one thinks himself so abundantly provided with it, that those even who are the most difficult to satisfy in everything else, do not usually desire a larger measure of this quality than they already possess. And in this it is not likely that all are mistaken: the conviction is rather to be held as testifying that the power of judging aright and of distinguishing Truth from Error, which is properly what is called Good Sense or Reason, is by nature equal in all men; and that the diversity of our opinions, consequently, does not arise from some being endowed with a larger share of Reason than others, but solely from this, that we conduct our thoughts along different ways, and do not fix our attention on the same objects. For to be possessed of a vigorous mind is not enough; the prime requisite is rightly to apply it. The greatest minds, as they are capable of the highest excellencies, are open likewise to the greatest aberrations; and those who travel very slowly may yet make far greater progress, provided they keep always to the straight road, than those who, while they run, forsake it.

For myself, I have never fancied my mind to be in any respect

* Translated from the *Discours de la Méthode pour bien conduire sa raison et chercher de la vérité dans les sciences*, Leyde, 1637; *Lat.* [by G. de Courcelles] *Specimina Philosophiae*, anno 1644 (revised by Descartes). The original French edition, which was made the basis of the translation, was minutely compared by the translator with the revised Latin edition, and preference given to the amendments of Descartes. The translation appeared in 1850 and entered its thirteenth edition in 1902.

more perfect than those of the generality; on the contrary, I have often wished that I were equal to some others in promptitude of thought, or in clearness and distinctness of imagination, or in fulness and readiness of memory. And besides these, I know of no other qualities that contribute to the perfection of the mind; for as to the Reason or Sense, inasmuch as it is that alone which constitutes us men, and distinguishes us from the brutes, I am disposed to believe that it is to be found complete in each individual; and on this point to adopt the common opinion of philosophers, who say that the difference of greater and less holds only among the *accidents*, and not among the *forms* or *natures* of *individuals* of the same *species*.

I will not hesitate, however, to avow my belief that it has been my singular good fortune to have very early in life fallen in with certain tracks which have conducted me to considerations and maxims, of which I have formed a Method that gives me the means, as I think, of gradually augmenting my knowledge, and of raising it by little and little to the highest point which the mediocrity of my talents and the brief duration of my life will permit me to reach. For I have already reaped from it such fruits that, although I have been accustomed to think lowly enough of myself, and although when I look with the eye of a philosopher at the varied courses and pursuits of mankind at large, I find scarcely one which does not appear vain and useless, I nevertheless derive the highest satisfaction from the progress I conceive myself to have already made in the search after truth, and cannot help entertaining such expectations of the future as to believe that if, among the occupations of men as men, there is any one really excellent and important, it is that which I have chosen.

After all, it is possible I may be mistaken; and it is but a little copper and glass, perhaps, that I take for gold and diamonds. I know how very liable we are to delusion in what relates to ourselves, and also how much the judgments of our friends are to be suspected when given in our favour. But I shall endeavour in this Discourse to describe the paths I have followed, and to delineate my life as in a picture, in order that each one may be

able to judge of them for himself, and that in the general opinion entertained of them, as gathered from current report, I myself may have a new help towards instruction to be added to those I have been in the habit of employing.

My present design, then, is not to teach the Method which each ought to follow for the right conduct of his Reason, but solely to describe the way in which I have endeavoured to conduct my own. They who set themselves to give precepts must of course regard themselves as possessed of greater skill than those to whom they prescribe; and if they err in the slightest particular, they subject themselves to censure. But as this Tract is put forth merely as a history, or, if you will, as a tale, in which, amid some examples worthy of imitation, there will be found, perhaps, as many more which it were advisable not to follow, I hope it will prove useful to some without being hurtful to any, and that my openness will find some favour with all.

From my childhood, I have been familiar with letters; and as I was given to believe that by their help a clear and certain knowledge of all that is useful in life might be acquired, I was ardently desirous of instruction. But as soon as I had finished the entire course of study, at the close of which it is customary to be admitted into the order of the learned, I completely changed my opinion. For I found myself involved in so many doubts and errors, that I was convinced I had advanced no farther in all my attempts at learning, than the discovery at every turn of my own ignorance. And yet I was studying in one of the most celebrated Schools in Europe, in which I thought there must be learned men, if such were anywhere to be found. I had been taught all that others learned there; and not contented with the sciences actually taught us, I had, in addition, read all the books that had fallen into my hands, treating of such branches as are esteemed the most curious and rare. I knew the judgment which others had formed of me; and I did not find that I was considered inferior to my fellows, although there were among them some who were already marked out to fill the places of our instructors. And, in fine, our age appeared to me as flourishing, and as fertile in powerful minds as any preceding one. I was thus led to take the

I revered our Theology, and aspired as much as any one to reach heaven: but being given assuredly to understand that the way is not less open to the most ignorant than to the most learned, and that the revealed truths which lead to heaven are above our comprehension, I did not presume to subject them to the impotency of my Reason; and I thought that in order competently to undertake their examination, there was need of some special help from heaven, and of being more than man.

Of Philosophy I will say nothing, except that when I saw that it had been cultivated for many ages by the most distinguished men, and that yet there is not a single matter within its sphere which is not still in dispute, and nothing, therefore, which is above doubt, I did not presume to anticipate that my success would be greater in it than that of others; and further, when I considered the number of conflicting opinions touching a single matter that may be upheld by learned men, while there can be but one true, I reckoned as well-nigh false all that was only probable.

As to the other Sciences, inasmuch as these borrow their principles from Philosophy, I judged that no solid superstructures could be reared on foundations so infirm; and neither the honour nor the gain held out by them was sufficient to determine me to their cultivation: for I was not, thank Heaven, in a condition which compelled me to make merchandise of Science for the bettering of my fortune; and though I might not profess to scorn glory as a Cynic, I yet made very slight account of that honour which I hoped to acquire only through fictitious titles. And, in fine, of false Sciences I thought I knew the worth sufficiently to escape being deceived by the professions of an alchemist, the predictions of an astrologer, the impostures of a magician, or by the artifices and boasting of any of those who profess to know things of which they are ignorant.

For these reasons, as soon as my age permitted me to pass from under the control of my instructors, I entirely abandoned the study of letters, and resolved no longer to seek any other science than the knowledge of myself, or of the great book of the world. I spent the remainder of my youth in travelling, in visit-

ing courts and armies, in holding intercourse with men of different dispositions and ranks, in collecting varied experience, in proving myself in the different situations into which fortune threw me, and, above all, in making such reflection on the matter of my experience as to secure my improvement. For it occurred to me that I should find much more truth in the reasonings of each individual with reference to the affairs in which he is personally interested, and the issue of which must presently punish him if he has judged amiss, than in those conducted by a man of letters in his study, regarding speculative matters that are of no practical moment, and followed by no consequences to himself, farther, perhaps, than that they foster his vanity the better the more remote they are from common sense; requiring, as they must in this case, the exercise of greater ingenuity and art to render them probable. In addition, I had always a most earnest desire to know how to distinguish the true from the false, in order that I might be able clearly to discriminate the right path in life, and proceed in it with confidence.

It is true that, while busied only in considering the manners of other men, I found here, too, scarce any ground for settled conviction, and remarked hardly less contradiction among them than in the opinions of the philosophers. So that the greatest advantage I derived from the study consisted in this, that, observing many things which, however extravagant and ridiculous to our apprehension, are yet by common consent received and approved by other great nations, I learned to entertain too decided a belief in regard to nothing of the truth of which I had been persuaded merely by example and custom: and thus I gradually extricated myself from many errors powerful enough to darken our Natural Intelligence, and incapacitate us in great measure from listening to Reason. But after I had been occupied several years in thus studying the book of the world, and in essaying to gather some experience, I at length resolved to make myself an object of study, and to employ all the powers of my mind in choosing the paths I ought to follow; an undertaking which was accompanied with greater success than it would have been had I never quitted my country or my books.

Part II

I was then in Germany, attracted thither by the wars in that country, which have not yet been brought to a termination; and as I was returning to the army from the coronation of the Emperor, the setting in of winter arrested me in a locality where, as I found no society to interest me, and was besides fortunately undisturbed by any cares or passions, I remained the whole day in seclusion,[1] with full opportunity to occupy my attention with my own thoughts. Of these one of the very first that occurred to me was, that there is seldom so much perfection in works composed of many separate parts, upon which different hands have been employed, as in those completed by a single master. Thus it is observable that the buildings which a single architect has planned and executed, are generally more elegant and commodious than those which several have attempted to improve, by making old walls serve for purposes for which they were not originally built. Thus also, those ancient cities which, from being at first only villages, have become, in course of time, large towns, are usually but ill laid out compared with the regularly constructed towns which a professional architect has freely planned on an open plain; so that although the several buildings of the former may often equal or surpass in beauty those of the latter, yet when one observes their indiscriminate juxtaposition, there a large one and here a small, and the consequent crookedness and irregularity of the streets, one is disposed to allege that chance rather than any human will guided by reason, must have led to such an arrangement. And if we consider that nevertheless there have been at all times certain officers whose duty it was to see that private buildings contributed to public ornament, the difficulty of reaching high perfection with but the materials of others to operate on, will be readily acknowledged. In the same way I fancied that those nations which, starting from a semi-barbarous state and advancing to civilisation by slow degrees, have had their laws successively determined, and, as it were, forced upon them simply by experience of the hurt-

[1] Literally, in a room heated by means of a stove.

fulness of particular crimes and disputes, would by this process come to be possessed of less perfect institutions than those which, from the commencement of their association as communities, have followed the appointments of some wise legislator. It is thus quite certain that the constitution of the true religion, the ordinances of which are derived from God, must be incomparably superior to that of every other. And, to speak of human affairs, I believe that the past preëminence of Sparta was due not to the goodness of each of its laws in particular, for many of these were very strange, and even opposed to good morals, but to the circumstance that, originated by a single individual, they all tended to a single end. In the same way I thought that the sciences contained in books, (such of them at least as are made up of probable reasonings, without demonstrations,) composed as they are of the opinions of many different individuals massed together, are farther removed from truth than the simple inferences which a man of good sense using his natural and unprejudiced judgment draws respecting the matters of his experience. And because we have all to pass through a state of infancy to manhood, and have been of necessity, for a length of time, governed by our desires and preceptors, (whose dictates were frequently conflicting, while neither perhaps always counselled us for the best,) I farther concluded that it is almost impossible that our judgments can be so correct or solid as they would have been, had our Reason been mature from the moment of our birth, and had we always been guided by it alone.

It is true, however, that it is not customary to pull down all the houses of a town with the single design of rebuilding them differently, and thereby rendering the streets more handsome; but it often happens that a private individual takes down his own with the view of erecting it anew, and that people are even sometimes constrained to this when their houses are in danger of falling from age, or when the foundations are insecure. With this before me by way of example, I was persuaded that it would indeed be preposterous for a private individual to think of reforming a state by fundamentally changing it throughout,

and overturning it in order to set it up amended; and the same I thought was true of any similar project for reforming the body of the Sciences, or the order of teaching them established in the Schools: but as for the opinions which up to that time I had embraced, I thought that I could not do better than resolve at once to sweep them wholly away, that I might afterwards be in a position to admit either others more correct, or even perhaps the same when they had undergone the scrutiny of Reason. I firmly believed that in this way I should much better succeed in the conduct of my life, than if I built only upon old foundations, and leant upon principles which, in my youth, I had taken upon trust. For although I recognised various difficulties in this undertaking, these were not, however, without remedy, nor once to be compared with such as attend the slightest reformation in public affairs. Large bodies, if once overthrown, are with great difficulty set up again, or even kept erect when once seriously shaken, and the fall of such is always disastrous. Then if there are any imperfections in the constitutions of states, (and that many such exist the diversity of constitutions is alone sufficient to assure us,) custom has without doubt materially smoothed their inconveniencies, and has even managed to steer altogether clear of, or insensibly corrected a number which sagacity could not have provided against with equal effect; and, in fine, the defects are almost always more tolerable than the change necessary for their removal; in the same manner that highways which wind among mountains, by being much frequented, become gradually so smooth and commodious, that it is much better to follow them than to seek a straighter path by climbing over the tops of rocks and descending to the bottoms of precipices.

Hence it is that I cannot in any degree approve of those restless and busy meddlers who, called neither by birth nor fortune to take part in the management of public affairs, are yet always projecting reforms; and if I thought that this Tract contained aught which might justify the suspicion that I was a victim of such folly, I would by no means permit its publication. I have never contemplated anything higher than the reformation of my own opinions, and basing them on a foundation wholly my own.

And although my own satisfaction with my work has led me to present here a draft of it, I do not by any means therefore recommend to every one else to make a similar attempt. Those whom God has endowed with a larger measure of genius will entertain, perhaps, designs still more exalted; but for the many I am much afraid lest even the present undertaking be more than they can safely venture to imitate. The single design to strip one's self of all past beliefs is one that ought not to be taken by every one. The majority of men is composed of two classes, for neither of which would this be at all a befitting resolution: in the *first* place, of those who with more than a due confidence in their own powers, are precipitate in their judgments and want the patience requisite for orderly and circumspect thinking; whence it happens, that if men of this class once take the liberty to doubt of their accustomed opinions, and quit the beaten highway, they will never be able to thread the byeway that would lead them by a shorter course, and will lose themselves and continue to wander for life; in the *second* place, of those who, possessed of sufficient sense or modesty to determine that there are others who excel them in the power of discriminating between truth and error, and by whom they may be instructed, ought rather to content themselves with the opinions of such than trust for more correct to their own Reason.

For my own part, I should doubtless have belonged to the latter class, had I received instruction from but one master, or had I never known the diversities of opinion that from time immemorial have prevailed among men of the greatest learning. But I had become aware, even so early as during my college life, that no opinion, however absurd and incredible, can be imagined, which has not been maintained by some one of the philosophers; and afterwards in the course of my travels I remarked that all those whose opinions are decidedly repugnant to ours are not on that account barbarians and savages, but on the contrary that many of these nations make an equally good, if not a better, use of their Reason than we do. I took into account also the very different character which a person brought up from infancy in France or Germany exhibits, from that which, with the same

mind originally, this individual would have possessed had he lived always among the Chinese or with savages, and the circumstance that in dress itself the fashion which pleased us ten years ago, and which may again, perhaps, be received into favour before ten years have gone, appears to us at this moment extravagant and ridiculous. I was thus led to infer that the ground of our opinions is far more custom and example than any certain knowledge. And, finally, although such be the ground of our opinions, I remarked that a plurality of suffrages is no guarantee of truth where it is at all of difficult discovery, as in such cases it is much more likely that it will be found by one than by many. I could, however, select from the crowd no one whose opinions seemed worthy of preference, and thus I found myself constrained, as it were, to use my own Reason in the conduct of my life.

But like one walking alone and in the dark, I resolved to proceed so slowly and with such circumspection, that if I did not advance far, I would at least guard against falling. I did not even choose to dismiss summarily any of the opinions that had crept into my belief without having been introduced by Reason, but first of all took sufficient time carefully to satisfy myself of the general nature of the task I was setting myself, and ascertain the true Method by which to arrive at the knowledge of whatever lay within the compass of my powers.

Among the branches of Philosophy, I had, at an earlier period, given some attention to Logic, and among those of the Mathematics to Geometrical Analysis and Algebra, — three Arts or Sciences which ought, as I conceived, to contribute something to my design. But, on examination, I found that, as for Logic, its syllogisms and the majority of its other precepts are of avail rather in the communication of what we already know, or even as the Art of Lully, in speaking without judgment of things of which we are ignorant, than in the investigation of the unknown; and although this Science contains indeed a number of correct and very excellent precepts, there are, nevertheless, so many others, and these either injurious or superfluous, mingled with the former, that it is almost quite as difficult to

effect a severance of the true from the false as it is to extract a Diana or a Minerva from a rough block of marble. Then as to the Analysis of the ancients and the Algebra of the moderns, besides that they embrace only matters highly abstract, and, to appearance, of no use, the former is so exclusively restricted to the consideration of figures, that it can exercise the Understanding only on condition of greatly fatiguing the Imagination;[1] and, in the latter, there is so complete a subjection to certain rules and formulas, that there results an art full of confusion and obscurity calculated to embarrass, instead of a science fitted to cultivate the mind. By these considerations I was induced to seek some other Method which would comprise the advantages of the three and be exempt from their defects. And as a multitude of laws often only hampers justice, so that a state is best governed when, with few laws, these are rigidly administered; in like manner, instead of the great number of precepts of which Logic is composed, I believed that the four following would prove perfectly sufficient for me, provided I took the firm and unwavering resolution never in a single instance to fail in observing them.

The *first* was never to accept anything for true which I did not clearly know to be such; that is to say, carefully to avoid precipitancy and prejudice, and to comprise nothing more in my judgment than what was presented to my mind so clearly and distinctly as to exclude all ground of doubt.

The *second*, to divide each of the difficulties under examination into as many parts as possible, and as might be necessary for its adequate solution.

The *third*, to conduct my thoughts in such order that, by commencing with objects the simplest and easiest to know, I might ascend by little and little, and, as it were, step by step, to the knowledge of the more complex; assigning in thought a certain order even to those objects which in their own nature do not stand in a relation of antecedence and sequence.

And the *last*, in every case to make enumerations so complete,

[1] The imagination must here be taken as equivalent simply to the representative faculty.

and reviews so general, that I might be assured that nothing was omitted.

The long chains of simple and easy reasonings by means of which geometers are accustomed to reach the conclusions of their most difficult demonstrations, had led me to imagine that all things, to the knowledge of which man is competent, are mutually connected in the same way, and that there is nothing so far removed from us as to be beyond our reach, or so hidden that we cannot discover it, provided only we abstain from accepting the false for the true, and always preserve in our thoughts the order necessary for the deduction of one truth from another. And I had little difficulty in determining the objects with which it was necessary to commence, for I was already persuaded that it must be with the simplest and easiest to know, and, considering that of all those who have hitherto sought truth in the sciences, the mathematicians alone have been able to find any demonstrations, that is, any certain and evident reasons, I did not doubt but that such must have been the rule of their investigations. I resolved to commence, therefore, with the examination of the simplest objects, not anticipating, however, from this any other advantage than that to be found in accustoming my mind to the love and nourishment of truth, and to a distaste for all such reasonings as were unsound. But I had no intention on that account of attempting to master all the particular Sciences commonly denominated Mathematics: but observing that, however different their objects, they all agree in considering only the various relations or proportions subsisting among those objects, I thought it best for my purpose to consider these proportions in the most general form possible, without referring them to any objects in particular, except such as would most facilitate the knowledge of them, and without by any means restricting them to these, that afterwards I might thus be the better able to apply them to every other class of objects to which they are legitimately applicable. Perceiving further, that in order to understand these relations I should sometimes have to consider them one by one, and sometimes only to bear them in mind, or embrace them in the aggregate,

I thought that, in order the better to consider them individually, I should view them as subsisting between straight lines, than which I could find no objects more simple, or capable of being more distinctly represented to my imagination and senses; and on the other hand, that in order to retain them in the memory, or embrace an aggregate of many, I should express them by certain characters the briefest possible. In this way I believed that I could borrow all that was best both in Geometrical Analysis and in Algebra, and correct all the defects of the one by help of the other.

And, in point of fact, the accurate observance of these few precepts gave me, I take the liberty of saying, such ease in unravelling all the questions embraced in these two sciences, that in the two or three months I devoted to their examination, not only did I reach solutions of questions I had formerly deemed exceedingly difficult, but even as regards questions of the solution of which I continued ignorant, I was enabled, as it appeared to me, to determine the means whereby, and the extent to which, a solution was possible; results attributable to the circumstance that I commenced with the simplest and most general truths, and that thus each truth discovered was a rule available in the discovery of subsequent ones. Nor in this perhaps shall I appear too vain, if it be considered that, as the truth on any particular point is one, whoever apprehends the truth, knows all that on that point can be known. The child, for example, who has been instructed in the elements of Arithmetic, and has made a particular addition, according to rule, may be assured that he has found, with respect to the sum of the numbers before him, all that in this instance is within the reach of human genius. Now, in conclusion, the Method which teaches adherence to the true order, and an exact enumeration of all the conditions of the thing sought includes all that gives certitude to the rules of Arithmetic.

But the chief ground of my satisfaction with this Method, was the assurance I had of thereby exercising my reason in all matters, if not with absolute perfection, at least with the greatest attainable by me: besides, I was conscious that by its use my

mind was becoming gradually habituated to clearer and more distinct conceptions of its objects; and I hoped also, from not having restricted this Method to any particular matter, to apply it to the difficulties of the other Sciences, with not less success than to those of Algebra. I should not, however, on this account have ventured at once on the examination of all the difficulties of the Sciences which presented themselves to me, for this would have been contrary to the order prescribed in the Method, but observing that the knowledge of such is dependent on principles borrowed from Philosophy, in which I found nothing certain, I thought it necessary first of all to endeavour to establish its principles. And because I observed, besides, that an inquiry of this kind was of all others of the greatest moment, and one in which precipitancy and anticipation in judgment were most to be dreaded, I thought that I ought not to approach it till I had reached a more mature age, (being at that time but twenty-three), and had first of all employed much of my time in preparation for the work, as well by eradicating from my mind all the erroneous opinions I had up to that moment accepted, as by amassing variety of experience to afford materials for my reasonings, and by continually exercising myself in my chosen Method with a view to increased skill in its application.

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MEDITATIONS ON THE FIRST PHILOSOPHY

Translated from the Latin and collated with the French by*
JOHN VEITCH

MEDITATION I

OF THE THINGS OF WHICH WE MAY DOUBT

SEVERAL years have now elapsed since I first became aware that I had accepted, even from my youth, many false opinions for true, and that consequently what I afterwards based on such principles was highly doubtful; and from that time I was convinced of the necessity of undertaking once in my life to rid myself of all the opinions I had adopted, and of commencing anew the work of building from the foundation, if I desired to establish a firm and abiding superstructure in the sciences. But as this enterprise appeared to me to be one of great magnitude, I waited until I had attained an age so mature as to leave me no hope that at any stage of life more advanced I should be better able to execute my design. On this account, I have delayed so long that I should henceforth consider I was doing wrong were I still to consume in deliberation any of the time that now remains for action. To-day, then, since I have opportunely freed my mind from all cares, [and am happily disturbed by no passions], and since I am in the secure possession of leisure in a peaceable retirement, I will at length apply myself earnestly and freely to the general overthrow of all my former opinions. But, to this end, it will not be necessary for me to show that the whole of these are false — a point, perhaps, which I shall never reach; but as even now my reason convinces me that I

* From the *Meditationes de prima philosophia*, Paris, 1641. *Fr.* par le Duc de Luynes, Paris, 1647. (Corrected by Descartes.) The English translation was made from the Latin or original text, but has also the additions of the French version here given in brackets. It appeared in 1853 and reached the thirteenth edition in 1902.

ought not the less carefully to withhold belief from what is not entirely certain and indubitable, than from what is manifestly false, it will be sufficient to justify the rejection of the whole if I shall find in each some ground for doubt. Nor for this purpose will it be necessary even to deal with each belief individually, which would be truly an endless labour; but, as the removal from below of the foundation necessarily involves the downfall of the whole edifice, I will at once approach the criticism of the principles on which all my former beliefs rested.

All that I have, up to this moment, accepted as possessed of the highest truth and certainty, I received either from or through the senses. I observed, however, that these sometimes misled us; and it is the part of prudence not to place absolute confidence in that by which we have even once been deceived.

But it may be said, perhaps, that, although the senses occasionally mislead us respecting minute objects, and such as are so far removed from us as to be beyond the reach of close observation, there are yet many other of their informations (presentations), of the truth of which it is manifestly impossible to doubt; as for example, that I am in this place, seated by the fire, clothed in a winter dressing-gown, that I hold in my hands this piece of paper, with other intimations of the same nature. But how could I deny that I possess these hands and this body, and withal escape being classed with persons in a state of insanity, whose brains are so disordered and clouded by dark bilious vapours as to cause them pertinaciously to assert that they are monarchs when they are in the greatest poverty; or clothed in [gold and] purple when destitute of any covering; or that their head is made of clay, their body of glass, or that they are gourds? I should certainly be not less insane than they, were I to regulate my procedure according to examples so extravagant.

Though this be true, I must nevertheless here consider that I am a man, and that, consequently, I am in the habit of sleeping, and representing to myself in dreams those same things, or even sometimes others less probable, which the insane think are presented to them in their waking moments. How often have I dreamt that I was in these familiar circumstances, — that I was

dressed, and occupied this place by the fire, when I was lying undressed in bed? At the present moment, however, I certainly look upon this paper with eyes wide awake; the head which I now move is not asleep; I extend this hand consciously and with express purpose, and I perceive it; the occurrences in sleep are not so distinct as all this. But I cannot forget that, at other times, I have been deceived in sleep by similar illusions; and, attentively considering those cases, I perceive so clearly that there exist no certain marks by which the state of waking can ever be distinguished from sleep, that I feel greatly astonished; and in amazement I almost persuade myself that I am now dreaming.

Let us suppose, then, that we are dreaming, and that all these particulars — namely, the opening of the eyes, the motion of the head, the forth-putting of the hands — are merely illusions; and even that we really possess neither an entire body nor hands such as we see. Nevertheless, it must be admitted at least that the objects which appear to us in sleep are, as it were, painted representations which could not have been formed unless in the likeness of realities; and, therefore, that those general objects, at all events, — namely, eyes, a head, hands, and an entire body — are not simply imaginary, but really existent. For, in truth, painters themselves, even when they study to represent sirens and satyrs by forms the most fantastic and extraordinary, cannot bestow upon them natures absolutely new, but can only make a certain medley of the members of different animals; or if they chance to imagine something so novel that nothing at all similar has ever been seen before, and such as is, therefore, purely fictitious and absolutely false, it is at least certain that the colours of which this is composed are real.

And on the same principle, although these general objects, viz. [a body], eyes, a head, hands, and the like, be imaginary, we are nevertheless absolutely necessitated to admit the reality at least of some other objects still more simple and universal than these, of which, just as of certain real colours, all those images of things, whether true and real, or false and fantastic, that are found in our consciousness (*cogitatio*), are formed.

To this class of objects seem to belong corporeal nature in

general and its extension; the figure of extended things, their quantity or magnitude, and their number, as also the place in, and the time during, which they exist, and other things of the same sort. We will not, therefore, perhaps reason illegitimately if we conclude from this that Physics, Astronomy, Medicine, and all the other sciences that have for their end the consideration of composite objects, are indeed of a doubtful character; but that Arithmetic, Geometry, and the other sciences of the same class, which regard merely the simplest and most general objects, and scarcely inquire whether or not these are really existent, contain somewhat that is certain and indubitable: for whether I am awake or dreaming, it remains true that two and three make five, and that a square has but four sides; nor does it seem possible that truths so apparent can ever fall under a suspicion of falsity [or incertitude].

Nevertheless, the belief that there is a God who is all-powerful, and who created me, such as I am, has, for a long time, obtained steady possession of my mind. How, then, do I know that he has not arranged that there should be neither earth, nor sky, nor any extended thing, nor figure, nor magnitude, nor place, providing at the same time, however, for [the rise in me of the perceptions of all these objects, and] the persuasion that these do not exist otherwise than as I perceive them? And further, as I sometimes think that others are in error respecting matters of which they believe themselves to possess a perfect knowledge, how do I know that I am not also deceived each time I add together two and three, or number the sides of a square, or form some judgment still more simple, if more simple indeed can be imagined? But perhaps Deity has not been willing that I should be thus deceived, for He is said to be supremely good. If, however, it were repugnant to the goodness of Deity to have created me subject to constant deception, it would seem likewise to be contrary to his goodness to allow me to be occasionally deceived; and yet it is clear that this is permitted. Some, indeed, might perhaps be found who would be disposed rather to deny the existence of a Being so powerful than to believe that there is nothing certain. But let us for the present refrain from opposing

this opinion, and grant that all which is here said of a Deity is fabulous: nevertheless, in whatever way it be supposed that I reached the state in which I exist, whether by fate, or chance, or by an endless series of antecedents and consequents, or by any other means, it is clear (since to be deceived and to err is a certain defect) that the probability of my being so imperfect as to be the constant victim of deception, will be increased exactly in proportion as the power possessed by the cause, to which they assign my origin, is lessened. To these reasonings I have assuredly nothing to reply, but am constrained at last to avow that there is nothing of all that I formerly believed to be true of which it is impossible to doubt, and that not through thoughtlessness or levity, but from cogent and maturely considered reasons; so that henceforward, if I desire to discover anything certain, I ought not the less carefully to refrain from assenting to those same opinions than to what might be shown to be manifestly false.

But it is not sufficient to have made these observations; care must be taken likewise to keep them in remembrance. For those old and customary opinions perpetually recur — long and familiar usage giving them the right of occupying my mind, even almost against my will, and subduing my belief; nor will I lose the habit of deferring to them and confiding in them so long as I shall consider them to be what in truth they are, viz., opinions to some extent doubtful, as I have already shown, but still highly probable, and such as it is much more reasonable to believe than deny. It is for this reason I am persuaded that I shall not be doing wrong, if, taking an opposite judgment of deliberate design, I become my own deceiver, by supposing, for a time, that all those opinions are entirely false and imaginary, until at length, having thus balanced my old by my new prejudices, my judgment shall no longer be turned aside by perverted usage from the path that may conduct to the perception of truth. For I am assured that, meanwhile, there will arise neither peril nor error from this course, and that I cannot for the present yield too much to distrust, since the end I now seek is not action, but knowledge.

I will suppose, then, not that Deity, who is sovereignly good

and the fountain of truth, but that some malignant demon, who is at once exceedingly potent and deceitful, has employed all his artifice to deceive me; I will suppose that the sky, the air, the earth, colours, figures, sounds, and all external things, are nothing better than the illusions of dreams, by means of which this being has laid snares for my credulity; I will consider myself as without hands, eyes, flesh, blood, or any of the senses, and as falsely believing that I am possessed of these; I will continue resolutely fixed in this belief, and if indeed by this means it be not in my power to arrive at the knowledge of truth, I shall at least do what is in my power, viz., [suspend my judgment], and guard with settled purpose against giving my assent to what is false, and being imposed upon by this deceiver, whatever be his power and artifice.

But this undertaking is arduous, and a certain indolence insensibly leads me back to my ordinary course of life; and just as the captive, who, perchance, was enjoying in his dreams an imaginary liberty, when he begins to suspect that it is but a vision, dreads awakening, and conspires with the agreeable illusions that the deception may be prolonged; so I, of my own accord, fall back into the train of my former beliefs, and fear to arouse myself from my slumber, lest the time of laborious wakefulness that would succeed this quiet rest, in place of bringing any light of day, should prove inadequate to dispel the darkness that will arise from the difficulties that have now been raised.

MEDITATION II

OF THE NATURE OF THE HUMAN MIND; AND THAT IT IS MORE EASILY KNOWN THAN THE BODY

The Meditation of yesterday has filled my mind with so many doubts, that it is no longer in my power to forget them. Nor do I see, meanwhile, any principle on which they can be resolved; and, just as if I had fallen all of a sudden into very deep water, I am so greatly disconcerted as to be unable either to plant my

feet firmly on the bottom or sustain myself by swimming on the surface. I will, nevertheless, make an effort, and try anew the same path on which I had entered yesterday, that is, proceed by casting aside all that admits of the slightest doubt, not less than if I had discovered it to be absolutely false; and I will continue always in this track until I shall find something that is certain, or at least, if I can do nothing more, until I shall know with certainty that there is nothing certain. Archimedes, that he might transport the entire globe from the place it occupied to another, demanded only a point that was firm and immoveable; so also, I shall be entitled to entertain the highest expectations, if I am fortunate enough to discover only one thing that is certain and indubitable.

I suppose, accordingly, that all the things which I see are false (fictitious); I believe that none of those objects which my fallacious memory represents ever existed; I suppose that I possess no senses; I believe that body, figure, extension, motion, and place are merely fictions of my mind. What is there, then, that can be esteemed true? Perhaps this only, that there is absolutely nothing certain.

But how do I know that there is not something different altogether from the objects I have now enumerated, of which it is impossible to entertain the slightest doubt? Is there not a God, or some being, by whatever name I may designate him, who causes these thoughts to arise in my mind? But why suppose such a being, for it may be I myself am capable of producing them? Am I, then, at least not something? But I before denied that I possessed senses or a body; I hesitate, however, for what follows from that? Am I so dependent on the body and the senses that without these I cannot exist? But I had the persuasion that there was absolutely nothing in the world, that there was no sky and no earth, neither minds nor bodies; was I not, therefore, at the same time, persuaded that I did not exist? Far from it; I assuredly existed, since I was persuaded. But there is I know not what being, who is possessed at once of the highest power and the deepest cunning, who is constantly employing all his ingenuity in deceiving me. Doubtless, then, I exist, since

I am deceived; and, let him deceive me as he may, he can never bring it about that I am nothing, so long as I shall be conscious that I am something. So that it must, in fine, be maintained, all things being maturely and carefully considered, that this proposition (*pronunciatum*) I am, I exist, is necessarily true each time it is expressed by me, or conceived in my mind.

But I do not yet know with sufficient clearness what I am, though assured that I am; and hence, in the next place, I must take care, lest perchance I inconsiderately substitute some other object in room of what is properly myself, and thus wander from truth, even in that knowledge (cognition) which I hold to be of all others the most certain and evident. For this reason, I will now consider anew what I formerly believed myself to be, before I entered on the present train of thought; and of my previous opinion I will retrench all that can in the least be invalidated by the grounds of doubt I have adduced, in order that there may at length remain nothing but what is certain and indubitable. What then did I formerly think I was? Undoubtedly I judged that I was a man. But what is a man? Shall I say a rational animal? Assuredly not; for it would be necessary forthwith to inquire into what is meant by animal, and what by rational, and thus, from a single question, I should insensibly glide into others, and these more difficult than the first; nor do I now possess enough of leisure to warrant me in wasting my time amid subtleties of this sort. I prefer here to attend to the thoughts that sprung up of themselves in my mind, and were inspired by my own nature alone, when I applied myself to the consideration of what I was. In the first place, then, I thought that I possessed a countenance, hands, arms, and all the fabric of members that appears in a corpse, and which I called by the name of body. It further occurred to me that I was nourished, that I walked, perceived, and thought, and all those actions I referred to the soul; but what the soul itself was I either did not stay to consider, or, if I did, I imagined that it was something extremely rare and subtile, like wind, or flame, or ether, spread through my grosser parts. As regarded the body, I did not even doubt of its nature, but thought I distinctly knew it, and if I had

wished to describe it according to the notions I then entertained, I should have explained myself in this manner: By body I understand all that can be terminated by a certain figure; that can be comprised in a certain place, and so fill a certain space as therefrom to exclude every other body; that can be perceived either by touch, sight, hearing, taste, or smell; that can be moved in different ways, not indeed of itself, but by something foreign to it by which it is touched [and from which it receives the impression]; for the power of self-motion, as likewise that of perceiving and thinking, I held as by no means pertaining to the nature of body; on the contrary, I was somewhat astonished to find such faculties existing in some bodies.

But [as to myself, what can I now say that I am], since I suppose there exists an extremely powerful, and, if I may so speak, malignant being, whose whole endeavours are directed towards deceiving me? Can I affirm that I possess any one of all those attributes of which I have lately spoken as belonging to the nature of body? After attentively considering them in my own mind, I find none of them that can properly be said to belong to myself. To recount them were idle and tedious. Let us pass, then, to the attributes of the soul. The first mentioned were the powers of nutrition and walking; but, if it be true that I have no body, it is true likewise that I am capable neither of walking nor of being nourished. Perception is another attribute of the soul; but perception too is impossible without the body: besides, I have frequently, during sleep, believed that I perceived objects which I afterwards observed I did not in reality perceive. Thinking is another attribute of the soul; and here I discover what properly belongs to myself. This alone is inseparable from me. I am — I exist: this is certain; but how often? As often as I think; for perhaps it would even happen, if I should wholly cease to think, that I should at the same time altogether cease to be. I now admit nothing that is not necessarily true: I am therefore, precisely speaking, only a thinking thing, that is, a mind (*mens sive animus*), understanding, or reason, — terms whose signification was before unknown to me. I am, however, a real thing, and really existent; but what thing? The answer was, a thinking

thing. The question now arises, am I aught besides? I will stimulate my imagination with a view to discover whether I am not still something more than a thinking being. Now it is plain I am not the assemblage of members called the human body; I am not a thin and penetrating air diffused through all these members, or wind, or flame, or vapour, or breath, or any of all the things I can imagine; for I supposed that all these were not, and, without changing the supposition, I find that I still feel assured of my existence.

But it is true, perhaps, that those very things which I suppose to be non-existent, because they are unknown to me, are not in truth different from myself whom I know. This is a point I cannot determine, and do not now enter into any dispute regarding it. I can only judge of things that are known to me: I am conscious that I exist, and I who know that I exist inquire into what I am. It is, however, perfectly certain that the knowledge of my existence, thus precisely taken, is not dependent on things, the existence of which is as yet unknown to me: and consequently it is not dependent on any of the things I can feign in imagination. Moreover, the phrase itself, I frame an image (*effingo*), reminds me of my error; for I should in truth frame one if I were to imagine myself to be anything, since to imagine is nothing more than to contemplate the figure or image of a corporeal thing; but I already know that I exist, and that it is possible at the same time that all those images, and in general all that relates to the nature of body, are merely dreams [or chimeras]. From this I discover that it is not more reasonable to say, I will excite my imagination that I may know more distinctly what I am, than to express myself as follows: I am now awake, and perceive something real; but because my perception is not sufficiently clear, I will of express purpose go to sleep that my dreams may represent to me the object of my perception with more truth and clearness. And, therefore, I know that nothing of all that I can embrace in imagination belongs to the knowledge which I have of myself, and that there is need to recall with the utmost care the mind from this mode of thinking, that it may be able to know its own nature with perfect distinctness.

But what, then, am I? A thinking thing, it has been said. But what is a thinking thing? It is a thing that doubts, understands, [conceives], affirms, denies, wills, refuses, that imagines also, and perceives. Assuredly it is not little, if all these properties belong to my nature. But why should they not belong to it? Am I not that very being who now doubts of almost everything; who, for all that, understands and conceives certain things; who affirms one alone as true, and denies the others; who desires to know more of them, and does not wish to be deceived; who imagines many things, sometimes even despite his will; and is likewise percipient of many, as if through the medium of the senses. Is there nothing of all this as true as that I am, even although I should be always dreaming, and although he who gave me being employed all his ingenuity to deceive me? Is there also any one of these attributes that can be properly distinguished from my thought, or that can be said to be separate from myself? For it is of itself so evident that it is I who doubt, I who understand, and I who desire, that it is here unnecessary to add anything by way of rendering it more clear. And I am as certainly the same being who imagines; for, although it may be (as I before supposed) that nothing I imagine is true, still the power of imagination does not cease really to exist in me and to form part of my thought. In fine, I am the same being who perceives, that is, who apprehends certain objects as by the organs of sense, since, in truth, I see light, hear a noise, and feel heat. But it will be said that these presentations are false, and that I am dreaming. Let it be so. At all events it is certain that I seem to see light, hear a noise, and feel heat; this cannot be false, and this is what in me is properly called perceiving (*sentire*), which is nothing else than thinking. From this I begin to know what I am with somewhat greater clearness and distinctness than heretofore.

But, nevertheless, it still seems to me, and I cannot help believing, that corporeal things, whose images are formed by thought, [which fall under the senses], and are examined by the same, are known with much greater distinctness than that I know not what part of myself which is not imaginable; although

in truth, it may seem strange to say that I know and comprehend with greater distinctness things whose existence appears to me doubtful, that are unknown, and do not belong to me, than others of whose reality I am persuaded, that are known to me, and appertain to my proper nature; in a word, than myself. But I see clearly what is the state of the case. My mind is apt to wander, and will not yet submit to be restrained within the limits of truth. Let us therefore leave the mind to itself once more, and, according to it every kind of liberty, [permit it to consider the objects that appear to it from without], in order that, having afterwards withdrawn it from these gently and opportunely, [and fixed it on the consideration of its being and the properties it finds in itself], it may then be the more easily controlled.

Let us now accordingly consider the objects that are commonly thought to be [the most easily, and likewise] the most distinctly known, viz., the bodies we touch and see; not, indeed, bodies in general, for these general notions are usually somewhat more confused, but one body in particular. Take, for example, this piece of wax; it is quite fresh, having been but recently taken from the beehive; it has not yet lost the sweetness of the honey it contained; it still retains somewhat of the odour of the flowers from which it was gathered; its colour, figure, size, are apparent (to the sight); it is hard, cold, easily handled; and sounds when struck upon with the finger. In fine, all that contributes to make a body as distinctly known as possible, is found in the one before us. But, while I am speaking, let it be placed near the fire — what remained of the taste exhales, the smell evaporates, the colour changes, its figure is destroyed, its size increases, it becomes liquid, it grows hot, it can hardly be handled, and, although struck upon, it emits no sound. Does the same wax still remain after this change? It must be admitted that it does remain; no one doubts it, or judges otherwise. What, then, was it I knew with so much distinctness in the piece of wax? Assuredly, it could be nothing of all that I observed by means of the senses, since all the things that fell under taste, smell, sight, touch, and hearing are changed, and yet the same wax remains. It was perhaps what I now think, viz., that this wax

was neither the sweetness of honey, the pleasant odour of flowers, the whiteness, the figure, nor the sound, but only a body that a little before appeared to me conspicuous under these forms, and which is now perceived under others. But, to speak precisely, what is it that I imagine when I think of it in this way? Let it be attentively considered, and, retrenching all that does not belong to the wax, let us see what remains. There certainly remains nothing, except something extended, flexible, and moveable. But what is meant by flexible and moveable? Is it not that I imagine that the piece of wax, being round, is capable of becoming square, or of passing from a square into a triangular figure? Assuredly such is not the case, because I conceive that it admits of an infinity of similar changes; and I am, moreover, unable to compass this infinity by imagination, and consequently this conception which I have of the wax is not the product of the faculty of imagination. But what now is this extension? Is it not also unknown? for it becomes greater when the wax is melted, greater when it is boiled, and greater still when the heat increases; and I should not conceive [clearly and] according to truth, the wax as it is, if I did not suppose that the piece we are considering admitted even of a wider variety of extension than I ever imagined. I must, therefore, admit that I cannot even comprehend by imagination what the piece of wax is, and that it is the mind alone (*mens*, Lat., *entendement*, F.) which perceives it. I speak of one piece in particular; for, as to wax in general, this is still more evident. But what is the piece of wax that can be perceived only by the [understanding or] mind? It is certainly the same which I see, touch, imagine; and, in fine, it is the same which, from the beginning, I believed it to be. But (and this it is of moment to observe) the perception of it is neither an act of sight, of touch, nor of magination, and never was either of these, though it might formerly seem so, but is simply an intuition (*inspectio*) of the mind, which may be imperfect and confused, as it formerly was, or very clear and distinct, as it is at present, according as the attention is more or less directed to the elements which it contains, and of which it is composed.

But, meanwhile, I feel greatly astonished when I observe [the weakness of my mind, and] its proneness to error. For although, without at all giving expression to what I think, I consider all this in my own mind, words yet occasionally impede my progress, and I am almost led into error by the terms of ordinary language. We say, for example, that we see the same wax when it is before us, and not that we judge it to be the same from its retaining the same colour and figure: whence I should forthwith be disposed to conclude that the wax is known by the act of sight, and not by the intuition of the mind alone, were it not for the analogous instance of human beings passing on in the street below, as observed from a window. In this case I do not fail to say that I see the men themselves, just as I say that I see the wax; and yet what do I see from the window beyond hats and cloaks that might cover artificial machines, whose motions might be determined by springs? But I judge that there are human beings from these appearances, and thus I comprehend, by the faculty of judgment alone which is in the mind, what I believed I saw with my eyes.

The man who makes it his aim to rise to knowledge superior to the common, ought to be ashamed to seek occasions of doubting from the vulgar forms of speech: instead, therefore, of doing this, I shall proceed with the matter in hand, and inquire whether I had a clearer and more perfect perception of the piece of wax when I first saw it, and when I thought I knew it by means of the external sense itself, or, at all events, by the common sense (*sensus communis*), as it is called, that is, by the imaginative faculty; or whether I rather apprehend it more clearly at present, after having examined with greater care, both what it is, and in what way it can be known. It would certainly be ridiculous to entertain any doubt on this point. For what, in that first perception, was there distinct? What did I perceive which any animal might not have perceived? But when I distinguish the wax from its exterior forms, and when, as if I had stripped it of its vestments, I consider it quite naked, it is certain, although some error may still be found in my judgment, that I cannot, nevertheless, thus apprehend it without possessing a human mind.

But, finally, what shall I say of the mind itself, that is, of myself? for as yet I do not admit that I am anything but mind. What, then! I who seem to possess so distinct an apprehension of the piece of wax, — do I not know myself, both with greater truth and certitude, and also much more distinctly and clearly? For if I judge that the wax exists because I see it, it assuredly follows, much more evidently, that I myself am or exist, for the same reason: for it is possible that what I see may not in truth be wax, and that I do not even possess eyes with which to see anything; but it cannot be that when I see, or, which comes to the same thing, when I think I see, I myself who think am nothing. So likewise, if I judge that the wax exists because I touch it, it will still also follow that I am; and if I determine that my imagination, or any other cause, whatever it be, persuades me of the existence of the wax, I will still draw the same conclusion. And what is here remarked of the piece of wax, is applicable to all the other things that are external to me. And further, if the [notion or] perception of wax appeared to me more precise and distinct, after that not only sight and touch, but many other causes besides, rendered it manifest to my apprehension, with how much greater distinctness must I now know myself, since all the reasons that contribute to the knowledge of the nature of wax, or of any body whatever, manifest still better the nature of my mind? And there are besides so many other things in the mind itself that contribute to the illustration of its nature, that those dependent on the body, to which I have here referred, scarcely merit to be taken into account.

But, in conclusion, I find I have insensibly reverted to the point I desired; for, since it is now manifest to me that bodies themselves are not properly perceived by the senses nor by the faculty of imagination, but by the intellect alone; and since they are not perceived because they are seen and touched, but only because they are understood [or rightly comprehended by thought], I readily discover that there is nothing more easily or clearly apprehended than my own mind. But because it is difficult to rid one's self so promptly of an opinion to which one has been long accustomed, it will be desirable to tarry for some time

at this stage, that, by long continued meditation, I may more deeply impress upon my memory this new knowledge.

MEDITATION III

OF GOD: THAT HE EXISTS

I will now close my eyes, I will stop my ears, I will turn away my senses from their objects, I will even efface from my consciousness all the images of corporeal things; or at least, because this can hardly be accomplished, I will consider them as empty and false; and thus, holding converse only with myself, and closely examining my nature, I will endeavour to obtain by degrees a more intimate and familiar knowledge of myself. I am a thinking (conscious) thing, that is, a being who doubts, affirms, denies, knows a few objects, and is ignorant of many, — [who loves, hates], wills, refuses, — who imagines likewise, and perceives; for, as I before remarked, although the things which I perceive or imagine are perhaps nothing at all apart from me [and in themselves], I am nevertheless assured that those modes of consciousness which I call perceptions and imaginations, in as far only as they are modes of consciousness, exist in me. And in the little I have said I think I have summed up all that I really know, or at least all that up to this time I was aware I knew. Now, as I am endeavouring to extend my knowledge more widely, I will use circumspection, and consider with care whether I can still discover in myself anything further which I have not yet hitherto observed. I am certain that I am a thinking thing; but do I not therefore likewise know what is required to render me certain of a truth? In this first knowledge, doubtless, there is nothing that gives me assurance of its truth except the clear and distinct perception of what I affirm, which would not indeed be sufficient to give me the assurance that what I say is true, if it could ever happen that anything I thus clearly and distinctly perceived should prove false; and accordingly it seems to me that I may now take as a general rule, that all that is very clearly and distinctly apprehended (conceived) is true.

Nevertheless I before received and admitted many things as

wholly certain and manifest, which yet I afterwards found to be doubtful. What, then, were those? They were the earth, the sky, the stars, and all the other objects which I was in the habit of perceiving by the senses. But what was it that I clearly [and distinctly] perceived in them? Nothing more than that the ideas and the thoughts of those objects were presented to my mind. And even now I do not deny that these ideas are found in my mind. But there was yet another thing which I affirmed, and which, from having been accustomed to believe it, I thought I clearly perceived, although, in truth, I did not perceive it at all; I mean the existence of objects external to me, from which those ideas proceeded, and to which they had a perfect resemblance; and it was here I was mistaken, or if I judged correctly, this assuredly was not to be traced to any knowledge I possessed (the force of my perception, Lat.).

But when I considered any matter in arithmetic and geometry, that was very simple and easy, as, for example, that two and three added together make five, and things of this sort, did I not view them with at least sufficient clearness to warrant me in affirming their truth? Indeed, if I afterwards judged that we ought to doubt of these things, it was for no other reason than because it occurred to me that a God might perhaps have given me such a nature as that I should be deceived, even respecting the matters that appeared to me the most evidently true. But as often as this preconceived opinion of the sovereign power of a God presents itself to my mind, I am constrained to admit that it is easy for him, if he wishes it, to cause me to err, even in matters where I think I possess the highest evidence; and, on the other hand, as often as I direct my attention to things which I think I apprehend with great clearness, I am so persuaded of their truth that I naturally break out into expressions such as these: Deceive me who may, no one will yet ever be able to bring it about that I am not, so long as I shall be conscious that I am, or at any future time cause it to be true that I have never been, it being now true that I am, or make two and three more or less than five, in supposing which, and other like absurdities, I discover a manifest contradiction.

And in truth, as I have no ground for believing that Deity is deceitful, and as, indeed, I have not even considered the reasons by which the existence of a Deity of any kind is established, the ground of doubt that rests only on this supposition is very slight, and, so to speak, metaphysical. But, that I may be able wholly to remove it, I must inquire whether there is a God, as soon as an opportunity of doing so shall present itself; and if I find that there is a God, I must examine likewise whether he can be a deceiver; for, without the knowledge of these two truths, I do not see that I can ever be certain of anything. And that I may be enabled to examine this without interrupting the order of meditation I have proposed to myself [which is, to pass by degrees from the notions that I shall find first in my mind to those I shall afterwards discover in it], it is necessary at this stage to divide all my thoughts into certain classes, and to consider in which of these classes truth and error are, strictly speaking, to be found.

Of my thoughts some are, as it were, images of things, and to these alone properly belongs the name *idea;* as when I think [represent to my mind] a man, a chimera, the sky, an angel, or God. Others, again, have certain other forms; as when I will, fear, affirm, or deny, I always, indeed, apprehend something as the object of my thought, but I also embrace in thought something more than the representation of the object; and of this class of thoughts some are called volitions or affections, and others judgments.

Now, with respect to ideas, if these are considered only in themselves, and are not referred to any object beyond them, they cannot, properly speaking, be false; for, whether I imagine a goat or a chimera, it is not less true that I imagine the one than the other. Nor need we fear that falsity may exist in the will or affections; for, although I may desire objects that are wrong, and even that never existed, it is still true that I desire them. There thus only remain our judgments, in which we must take diligent heed that we be not deceived. But the chief and most ordinary error that arises in them consists in judging that the ideas which are in us are like or conformed to the things

that are external to us; for assuredly, if we but considered the ideas themselves as certain modes of our thought (consciousness), without referring them to anything beyond, they would hardly afford any occasion of error.

But, among these ideas, some appear to me to be innate, others adventitious, and others to be made by myself (factitious); for, as I have the power of conceiving what is called a thing, or a truth, or a thought, it seems to me that I hold this power from no other source than my own nature; but if I now hear a noise, if I see the sun, or if I feel heat, I have all along judged that these sensations proceeded from certain objects existing out of myself; and, in fine, it appears to me that sirens, hippogryphs, and the like, are inventions of my own mind. But I may even perhaps come to be of opinion that all my ideas are of the class which I call adventitious, or that they are all innate, or that they are all factitious, for I have not yet clearly discovered their true origin; and what I have here principally to do is to consider, with reference to those that appear to come from certain objects without me, what grounds there are for thinking them like these objects.

The first of these grounds is that it seems to me I am so taught by nature; and the second that I am conscious that those ideas are not dependent on my will, and therefore not on myself, for they are frequently presented to me against my will, — as at present, whether I will or not, I feel heat; and I am thus persuaded that this sensation or idea (*sensum vel ideam*) of heat is produced in me by something different from myself, viz., by the heat of the fire by which I sit. And it is very reasonable to suppose that this object impresses me with its own likeness rather than any other thing.

But I must consider whether these reasons are sufficiently strong and convincing. When I speak of being taught by nature in this matter, I understand by the word nature only a certain spontaneous impetus that impels me to believe in a resemblance between ideas and their objects, and not a natural light that affords a knowledge of its truth. But these two things are widely different: for what the natural light shows to be true can be in

no degree doubtful, as, for example, that I am because I doubt, and other truths of the like kind: inasmuch as I possess no other faculty whereby to distinguish truth from error, which can teach me the falsity of what the natural light declares to be true, and which is equally trustworthy; but with respect to [seemingly] natural impulses, I have observed, when the question related to the choice of right or wrong in action, that they frequently led me to take the worse part; nor do I see that I have any better ground for following them in what relates to truth and error. Then, with respect to the other reason, which is that because these ideas do not depend on my will, they must arise from objects existing without me, I do not find it more convincing than the former; for, just as those natural impulses, of which I have lately spoken, are found in me, notwithstanding that they are not always in harmony with my will, so likewise it may be that I possess some power not sufficiently known to myself capable of producing ideas without the aid of external objects, and, indeed, it has always hitherto appeared to me that they are formed during sleep, by some power of this nature, without the aid of aught external. And, in fine, although I should grant that they proceeded from those objects, it is not a necessary consequence that they must be like them. On the contrary, I have observed, in a number of instances, that there was a great difference between the object and its idea. Thus, for example, I find in my mind two wholly diverse ideas of the sun; the one, by which it appears to me extremely small, draws its origin from the senses, and should be placed in the class of adventitious ideas; the other, by which it seems to be many times larger than the whole earth, is taken up on astronomical grounds, that is, elicited from certain notions born with me, or is framed by myself in some other manner. These two ideas cannot certainly both resemble the same sun; and reason teaches me that the one which seems to have immediately emanated from it is the most unlike. And these things sufficiently prove that hitherto it has not been from a certain and deliberate judgment, but only from a sort of blind impulse, that I believed in the existence of certain things different from myself, which, by the organs of sense, or by whatever other

means it might be, conveyed their ideas or images into my mind [and impressed it with their likenesses].

But there is still another way of inquiring whether, of the objects whose ideas are in my mind, there are any that exist out of me. If ideas are taken in so far only as they are certain modes of consciousness, I do not remark any difference or inequality among them, and all seem, in the same manner, to proceed from myself; but, considering them as images, of which one represents one thing and another a different, it is evident that a great diversity obtains among them. For, without doubt, those that represent substances are something more, and contain in themselves, so to speak, more objective reality [that is, participate by representation in higher degrees of being or perfection], than those that represent only modes or accidents; and again, the idea by which I conceive a God [sovereign], eternal, infinite, [immutable], all-knowing, all-powerful, and the creator of all things that are out of himself, — this, I say, has certainly in it more objective reality than those ideas by which finite substances are represented.

Now, it is manifest by the natural light that there must at least be as much reality in the efficient and total cause as in its effect; for whence can the effect draw its reality if not from its cause? and how could the cause communicate to it this reality unless it possessed it in itself? And hence it follows, not only that what is cannot be produced by what is not, but likewise that the more perfect, — in other words, that which contains in itself more reality, — cannot be the effect of the less perfect: and this is not only evidently true of those effects, whose reality is actual or formal, but likewise of ideas, whose reality is only considered as objective. Thus, for example, the stone that is not yet in existence, not only cannot now commence to be, unless it be produced by that which possesses in itself, formally or eminently, all that enters into its composition, [in other words, by that which contains in itself the same properties that are in the stone, or others superior to them]; and heat can only be produced in a subject that was before devoid of it, by a cause that is of an order, [degree or kind], at least as perfect as heat; and so of the others

But further, even the idea of the heat, or of the stone, cannot exist in me unless it be put there by a cause that contains, at least, as much reality as I conceive existent in the heat or in the stone: for, although that cause may not transmit into my idea anything of its actual or formal reality, we ought not on this account to imagine that it is less real; but we ought to consider that, [as every idea is a work of the mind], its nature is such as of itself to demand no other formal reality than that which it borrows from our consciousness, of which it is but a mode, [that is, a manner or way of thinking]. But in order that an idea may contain this objective reality rather than that, it must doubtless derive it from some cause in which is found at least as much formal reality as the idea contains of objective; for, if we suppose that there is found in an idea anything which was not in its cause, it must of course derive this from nothing. But, however imperfect may be the mode of existence by which a thing is objectively [or by representation] in the understanding by its idea, we certainly cannot, for all that, allege that this mode of existence is nothing, nor, consequently, that the idea owes its origin to nothing. Nor must it be imagined that, since the reality which is considered in these ideas is only objective, the same reality need not be formally (actually) in the causes of these ideas, but only objectively: for, just as the mode of existing objectively belongs to ideas by their peculiar nature, so likewise the mode of existing formally appertains to the causes of these ideas (at least to the first and principal), by their peculiar nature. And although an idea may give rise to another idea, this regress cannot, nevertheless, be infinite; we must in the end reach a first idea, the cause of which is, as it were, the archetype in which all the reality [or perfection] that is found objectively [or by representation] in these ideas is contained formally [and in act]. I am thus clearly taught by the natural light that ideas exist in me as pictures or images, which may in truth readily fall short of the perfection of the objects from which they are taken, but can never contain anything greater or more perfect.

And in proportion to the time and care with which I examine all those matters, the conviction of their truth brightens and

becomes distinct. But, to sum up, what conclusion shall I draw from it all? It is this; — if the objective reality [or perfection] of any one of my ideas be such as clearly to convince me, that this same reality exists in me neither formally nor eminently, and if, as follows from this, I myself cannot be the cause of it, it is a necessary consequence that I am not alone in the world, but that there is besides myself some other being who exists as the cause of that idea; while, on the contrary, if no such idea be found in my mind, I shall have no sufficient ground of assurance of the existence of any other being besides myself; for, after a most careful search, I have, up to this moment, been unable to discover any other ground.

But, among these my ideas, besides that which represents myself, respecting which there can be here no difficulty, there is one that represents a God; others that represent corporeal and inanimate things; others angels; others animals; and, finally, there are some that represent men like myself. But with respect to the ideas that represent other men, or animals, or angels, I can easily suppose that they were formed by the mingling and composition of the other ideas which I have of myself, of corporeal things, and of God, although there were, apart from myself, neither men, animals, nor angels. And with regard to the ideas of corporeal objects, I never discovered in them anything so great or excellent which I myself did not appear capable of originating; for, by considering these ideas closely and scrutinising them individually, in the same way that I yesterday examined the idea of wax, I find that there is but little in them that is clearly and distinctly perceived. As belonging to the class of things that are clearly apprehended, I recognise the following, viz., magnitude or extension in length, breadth, and depth; figure, which results from the termination of extension; situation, which bodies of diverse figures preserve with reference to each other; and motion or the change of situation; to which may be added substance, duration, and number. But with regard to light, colours, sounds, odours, tastes, heat, cold, and the other tactile qualities, they are thought with so much obscurity and confusion, that I cannot determine even whether

they are true or false; in other words, whether or not the ideas I have of these qualities are in truth the ideas of real objects. For although I before remarked that it is only in judgments that formal falsity, or falsity properly so called, can be met with, there may nevertheless be found in ideas a certain material falsity, which arises when they represent what is nothing as if it were something. Thus, for example, the ideas I have of cold and heat are so far from being clear and distinct, that I am unable from them to discover whether cold is only the privation of heat, or heat the privation of cold; or whether they are or are not real qualities: and since, ideas being as it were images, there can be none that does not seem to us to represent some object, the idea which represents cold as something real and positive will not improperly be called false, if it be correct to say that cold is nothing but a privation of heat; and so in other cases. To ideas of this kind, indeed, it is not necessary that I should assign any author besides myself: for if they are false, that is, represent objects that are unreal, the natural light teaches me that they proceed from nothing; in other words, that they are in me only because something is wanting to the perfection of my nature; but if these ideas are true, yet because they exhibit to me so little reality that I cannot even distinguish the object represented from non-being, I do not see why I should not be the author of them.

With reference to those ideas of corporeal things that are clear and distinct, there are some which, as appears to me might have been taken from the idea I have of myself, as those of substance, duration, number, and the like. For when I think that a stone is a substance, or a thing capable of existing of itself, and that I am likewise a substance, although I conceive that I am a thinking and non-extended thing, and that the stone, on the contrary, is extended and unconscious, there being thus the greatest diversity between the two concepts, — yet these two ideas seem to have this in common that they both represent substances. In the same way, when I think of myself as now existing, and recollect besides that I existed some time ago, and when I am conscious of various thoughts whose number I know,

I then acquire the ideas of duration and number, which I can afterwards transfer to as many objects as I please. With respect to the other qualities that go to make up the ideas of corporeal objects, viz., extension, figure, situation, and motion, it is true that they are not formally in me, since I am merely a thinking being; but because they are only certain modes of substance, and because I myself am a substance, it seems possible that they may be contained in me eminently.

There only remains, therefore, the idea of God, in which I must consider whether there is anything that cannot be supposed to originate with myself. By the name God, I understand a substance infinite, [eternal, immutable], independent, all-knowing, all-powerful, and by which I myself, and every other thing that exists, if any such there be, were created. But these properties are so great and excellent, that the more attentively I consider them the less I feel persuaded that the idea I have of them owes its origin to myself alone. And thus it is absolutely necessary to conclude, from all that I have before said, that God exists: for though the idea of substance be in my mind owing to this, that I myself am a substance, I should not, however, have the idea of an infinite substance, seeing I am a finite being, unless it were given me by some substance in reality infinite.

And I must not imagine that I do not apprehend the infinite by a true idea, but only by the negation of the finite, in the same way that I comprehend repose and darkness by the negation of motion and light: since, on the contrary, I clearly perceive that there is more reality in the infinite substance than in the finite, and therefore that in some way I possess the perception (notion) of the infinite before that of the finite, that is, the perception of God before that of myself, for how could I know that I doubt, desire, or that something is wanting to me, and that I am not wholly perfect, if I possessed no idea of a being more perfect than myself, by comparison of which I knew the deficiencies of my nature?

And it cannot be said that this idea of God is perhaps materially false, and consequently that it may have arisen from nothing,

[in other words, that it may exist in me from my imperfection] as I before said of the ideas of heat and cold, and the like: for, on the contrary, as this idea is very clear and distinct, and contains in itself more objective reality than any other, there can be no one of itself more true, or less open to the suspicion of falsity.

The idea, I say, of a being supremely perfect, and infinite, is in the highest degree true; for although, perhaps, we may imagine that such a being does not exist, we cannot, nevertheless, suppose that his idea represents nothing real, as I have already said of the idea of cold. It is likewise clear and distinct in the highest degree, since whatever the mind clearly and distinctly conceives as real or true, and as implying any perfection, is contained entire in this idea. And this is true, nevertheless, although I do not comprehend the infinite, and although there may be in God an infinity of things that I cannot comprehend, nor perhaps even compass by thought in any way; for it is of the nature of the infinite that it should not be comprehended by the finite; and it is enough that I rightly understand this, and judge that all which I clearly perceive, and in which I know there is some perfection, and perhaps also an infinity of properties of which I am ignorant, are formally or eminently in God, in order that the idea I have of him may become the most true, clear, and distinct of all the ideas in my mind.

But perhaps I am something more than I suppose myself to be, and it may be that all those perfections which I attribute to God, in some way exist potentially in me, although they do not yet show themselves, and are not reduced to act. Indeed, I am already conscious that my knowledge is being increased [and perfected] by degrees; and I see nothing to prevent it from thus gradually increasing to infinity, nor any reason why, after such increase and perfection, I should not be able thereby to acquire all the other perfections of the Divine nature; nor, in fine, why the power I possess of acquiring those perfections, if it really now exist in me, should not be sufficient to produce the ideas of them. Yet, on looking more closely into the matter, I discover that this cannot be; for, in the first place, although it were

true that my knowledge daily acquired new degrees of perfection, and although there were potentially in my nature much that was not as yet actually in it, still all these excellences make not the slightest approach to the idea I have of the Deity, in whom there is no perfection merely potentially [but all actually] existent; for it is even an unmistakeable token of imperfection in my knowledge, that it is augmented by degrees. Further, although my knowledge increase more and more, nevertheless I am not, therefore, induced to think that it will ever be actually infinite, since it can never reach that point beyond which it shall be incapable of further increase. But I conceive God as actually infinite, so that nothing can be added to his perfection. And, in fine, I readily perceive that the objective being of an idea cannot be produced by a being that is merely potentially existent, which, properly speaking, is nothing, but only by a being existing formally or actually.

And, truly, I see nothing in all that I have now said which it is not easy for any one, who shall carefully consider it, to discern by the natural light; but when I allow my attention in some degree to relax, the vision of my mind being obscured, and, as it were, blinded by the images of sensible objects, I do not readily remember the reason why the idea of a being more perfect than myself, must of necessity have proceeded from a being in reality more perfect. On this account I am here desirous to inquire further, whether I, who possess this idea of God, could exist supposing there were no God. And I ask, from whom could I, in that case, derive my existence? Perhaps from myself, or from my parents, or from some other causes less perfect than God; for anything more perfect, or even equal to God, cannot be thought or imagined. But if I [were independent of every other existence, and] were myself the author of my being, I should doubt of nothing, I should desire nothing, and, in fine, no perfection would be awanting to me; for I should have bestowed upon myself every perfection of which I possess the idea, and I should thus be God. And it must not be imagined that what is now wanting to me is perhaps of more difficult acquisition than that of which I am already possessed; for, on the contrary, it is

quite manifest that it was a matter of much higher difficulty that I, a thinking being, should arise from nothing, than it would be for me to acquire the knowledge of many things of which I am ignorant, and which are merely the accidents of a thinking substance; and certainly, if I possessed of myself the greater perfection of which I have now spoken, [in other words, if I were the author of my own existence], I would not at least have denied to myself things that may be more easily obtained, [as that infinite variety of knowledge of which I am at present destitute]. I could not, indeed, have denied to myself any property which I perceive is contained in the idea of God, because there is none of these that seems to me to be more difficult to make or acquire; and if there were any that should happen to be more difficult to acquire, they would certainly appear so to me (supposing that I myself were the source of the other things I possess), because I should discover in them a limit to my power. And though I were to suppose that I always was as I now am, I should not, on this ground, escape the force of these reasonings, since it would not follow, even on this supposition, that no author of my existence needed to be sought after. For the whole time of my life may be divided into an infinity of parts, each of which is in no way dependent on any other; and, accordingly, because I was in existence a short time ago, it does not follow that I must now exist, unless in this moment some cause create me anew as it were, — that is, conserve me. In truth, it is perfectly clear and evident to all who will attentively consider the nature of duration, that the conservation of a substance, in each moment of its duration, requires the same power and act that would be necessary to create it, supposing it were not yet in existence; so that it is manifestly a dictate of the natural light that conservation and creation differ merely in respect of our mode of thinking [and not in reality]. All that is here required, therefore, is that I interrogate myself to discover whether I possess any power by means of which I can bring it about that I, who now am, shall exist a moment afterwards: for, since I am merely a thinking thing (or since, at least, the precise question, in the meantime, is only of that part of myself), if such a power resided in me, I

should, without doubt, be conscious of it; but I am conscious of no such power, and thereby I manifestly know that I am dependent upon some being different from myself.

But perhaps the being upon whom I am dependent, is not God, and I have been produced either by my parents, or by some causes less perfect than Deity. This cannot be: for, as I before said, it is perfectly evident that there must at least be as much reality in the cause as in its effect; and accordingly, since I am a thinking thing, and possess in myself an idea of God, whatever in the end be the cause of my existence, it must of necessity be admitted that it is likewise a thinking being, and that it possesses in itself the idea and all the perfections I attribute to Deity. Then it may again be inquired whether this cause owes its origin and existence to itself, or to some other cause. For if it be self-existent, it follows, from what I have before laid down, that this cause is God; for, since it possesses the perfection of self-existence, it must likewise, without doubt, have the power of actually possessing every perfection of which it has the idea, — in other words, all the perfections I conceive to belong to God. But if it owe its existence to another cause than itself, we demand again, for a similar reason, whether this second cause exists of itself or through some other, until, from stage to stage, we at length arrive at an ultimate cause, which will be God. And it is quite manifest that in this matter there can be no infinite regress of causes, seeing that the question raised respects not so much the cause which once produced me, as that by which I am at this present moment conserved.

Nor can it be supposed that several causes concurred in my production, and that from one I received the idea of one of the perfections I attribute to Deity, and from another the idea of some other, and thus that all those perfections are indeed found somewhere in the universe, but do not all exist together in a single being who is God; for, on the contrary, the unity, the simplicity or inseparability of all the properties of Deity, is one of the chief perfections I conceive him to possess; and the idea of this unity of all the perfections of Deity, could certainly not be put into my mind by any cause from which I did not like-

wise receive the ideas of all the other perfections; or no power could enable me to embrace them in an inseparable unity, without at the same time giving me the knowledge of what they were [and of their existence in a particular mode].

Finally, with regard to my parents [from whom it appears I sprung], although all that I believed respecting them be true, it does not, nevertheless, follow that I am conserved by them, or even that I was produced by them, in so far as I am a thinking being. All that, at the most, they contributed to my origin was the giving of certain dispositions (modifications) to the matter in which I have hitherto judged that I or my mind, which is what alone I now consider to be myself, is enclosed; and thus there can here be no difficulty with respect to them, and it is absolutely necessary to conclude from this alone that I am, and possess the idea of a being absolutely perfect, that is, of God, that his existence is most clearly demonstrated.

There remains only the inquiry as to the way in which I received this idea from God; for I have not drawn it from the senses, nor is it even presented to me unexpectedly, as is usual with the ideas of sensible objects, when these are presented or appear to be presented to the external organs of the senses; it is not even a pure production or fiction of my mind, for it is not in my power to take from or add to it; and consequently there but remains the alternative that it is innate, in the same way as is the idea of myself. And, in truth, it is not to be wondered at that God, at my creation, implanted this idea in me, that it might serve, as it were, for the mark of the workman impressed on his work; and it is not also necessary that the mark should be something different from the work itself; but considering only that God is my creator, it is highly probable that he in some way fashioned me after his own image and likeness, and that I perceive this likeness, in which is contained the idea of God, by the same faculty by which I apprehend myself, — in other words, when I make myself the object of reflection, I not only find that I am an incomplete, [imperfect] and dependent being, and one who unceasingly aspires after something better and greater than he is; but, at the same time, I am assured likewise that he

upon whom I am dependent possesses in himself all the goods after which I aspire, [and the ideas of which I find in my mind], and that not merely indefinitely and potentially, but infinitely and actually, and that he is thus God. And the whole force of the argument of which I have here availed myself to establish the existence of God, consists in this, that I perceive I could not possibly be of such a nature as I am, and yet have in my mind the idea of a God, if God did not in reality exist, — this same God, I say, whose idea is in my mind — that is, a being who possesses all those lofty perfections, of which the mind may have some slight conception, without, however, being able fully to comprehend them, — and who is wholly superior to all defect, [and has nothing that marks imperfection]: whence it is sufficiently manifest that he cannot be a deceiver, since it is a dictate of the natural light that all fraud and deception spring from some defect.

But before I examine this with more attention, and pass on to the consideration of other truths that may be evolved out of it, I think it proper to remain here for some time in the contemplation of God himself — that I may ponder at leisure his marvellous attributes — and behold, admire, and adore the beauty of this light so unspeakably great, as far, at least, as the strength of my mind, which is to some degree dazzled by the sight, will permit. For just as we learn by faith that the supreme felicity of another life consists in the contemplation of the Divine majesty alone, so even now we learn from experience that a like meditation, though incomparably less perfect, is the source of the highest satisfaction of which we are susceptible in this life.

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BARUCH DE SPINOZA

(1632–1677)

THE ETHICS

Translated from the Latin by*

R. H. M. ELWES

Part I.—CONCERNING GOD

Definitions

I. By that which is *self-caused*, I mean that of which the essence involves existence, or that of which the nature is only conceivable as existent.

II. A thing is called *finite after its kind*, when it can be limited by another thing of the same nature; for instance, a body is called finite because we always conceive another greater body. So, also, a thought is limited by another thought, but a body is not limited by thought, nor a thought by body.

III. By *substance*, I mean that which is in itself, and is conceived through itself: in other words, that of which a conception can be formed independently of any other conception.

IV. By *attribute*, I mean that which the intellect perceives as constituting the essence of substance.

V. By *mode*, I mean the modifications of substance, or that which exists in, and is conceived through, something other than itself.

VI. By *God*, I mean a being absolutely infinite—that is, a substance consisting in infinite attributes, of which each expresses eternal and infinite essentiality.

Explanation.—I say absolutely infinite, not infinite after its kind: for, of a thing infinite only after its kind, infinite attributes may be denied; but that which is absolutely infinite, contains in

* *Opera posthuma*, Amsterdam, 1677; *Opera*, ed. C. H. Bruder, Leipzig, 1843–46 ("Ethica ordine geometrica demonstrata," vol. i, pp. 143–416). Reprinted here from *Spinoza's Works*, translated by R. H. M. Elwes. London, George Bell and Sons, 1884; rev. ed., 1906.

its essence whatever expresses reality, and involves no negation.

VII. That thing is called free, which exists solely by the necessity of its own nature, and of which the action is determined by itself alone. On the other hand, that thing is necessary, or rather constrained, which is determined by something external to itself to a fixed and definite method of existence or action.

VIII. By *eternity*, I mean existence itself, in so far as it is conceived necessarily to follow solely from the definition of that which is eternal.

Explanation. — Existence of this kind is conceived as an eternal truth, like the essence of a thing, and, therefore, cannot be explained by means of continuance or time, though continuance may be conceived without a beginning or end.

Axioms

I. Everything which exists, exists either in itself or in something else.

II. That which cannot be conceived through anything else must be conceived through itself.

III. From a given definite cause an effect necessarily follows; and, on the other hand, if no definite cause be granted, it is impossible that an effect can follow.

IV. The knowledge of an effect depends on and involves the knowledge of a cause.

V. Things which have nothing in common cannot be understood, the one by means of the other; the conception of one does not involve the conception of the other.

VI. A true idea must correspond with its ideate or object.

VII. If a thing can be conceived as non-existing, its essence does not involve existence.

Propositions

Prop. I. *Substance is by nature prior to its modifications.*

Proof. — This is clear from Deff. iii. and v.

Prop. II. *Two substances, whose attributes are different, have nothing in common.*

Proof. — Also evident from Def. iii. For each must exist in itself, and be conceived through itself; in other words, the conception of one does not imply the conception of the other.

PROP. III. *Things which have nothing in common cannot be one the cause of the other.*

Proof. — If they have nothing in common, it follows that one cannot be apprehended by means of the other (Ax. v.), and, therefore, one cannot be the cause of the other (Ax. iv.). *Q. E. D.*

PROP. IV. *Two or more distinct things are distinguished one from the other, either by the difference of the attributes of the substances, or by the difference of their modifications.*

Proof. — Everything which exists, exists either in itself or in something else (Ax. i.), — that is (by Defs. iii. and v.), nothing is granted in addition to the understanding, except substance and its modifications. Nothing is, therefore, given besides the understanding, by which several things may be distinguished one from the other, except the substances, or, in other words (see Ax. iv.), their attributes and modifications. *Q. E. D.*

PROP. V. *There cannot exist in the universe two or more substances having the same nature or attribute.*

Proof. — If several distinct substances be granted, they must be distinguished one from the other, either by the difference of their attributes, or by the difference of their modifications (Prop. iv.). If only by the difference of their attributes, it will be granted that there cannot be more than one with an identical attribute. If by the difference of their modifications, — as substance is naturally prior to its modifications (Prop. i.), — it follows that setting the modifications aside, and considering substance in itself, that is truly (Defs. iii. and vi.), there cannot be conceived one substance different from another, — that is (by Prop. iv.), there cannot be granted several substances, but one substance only. *Q. E. D.*

PROP. VI. *One substance cannot be produced by another substance.*

Proof. — It is impossible that there should be in the universe two substances with an identical attribute, *i. e.* which have

anything common to them both (Prop. ii.), and, therefore (Prop. iii.), one cannot be the cause of another, neither can one be produced by the other. *Q. E. D.*

Corollary. — Hence it follows that a substance cannot be produced by anything external to itself. For in the universe nothing is granted, save substances and their modifications (as appears from Ax. i. and Defs. iii. and v.). Now (by the last Prop.) substance cannot be produced by another substance, therefore it cannot be produced by anything external to itself. *Q. E. D.* This is shown still more readily by the absurdity of the contradictory. For, if substance be produced by an external cause, the knowledge of it would depend on the knowledge of its cause (Ax. iv.), and (by Def. iii.) it would itself not be substance.

PROP. VII. *Existence belongs to the nature of substance.*

Proof. — Substance cannot be produced by anything external (Corollary, Prop. vi.), it must, therefore, be its own cause — that is, its essence necessarily involves existence, or existence belongs to its nature.

PROP. VIII. *Every substance is necessarily infinite.*

Proof. — There can only be one substance with an identical attribute, and existence follows from its nature (Prop. vii.); its nature, therefore, involves existence, either as finite or infinite. It does not exist as finite, for (by Def. ii.) it would then be limited by something else of the same kind, which would also necessarily exist (Prop. vii.); and there would be two substances with an identical attribute, which is absurd (Prop. v.). It therefore exists as infinite. *Q. E. D.*

Note I. — As finite existence involves a partial negation, and infinite existence is the absolute affirmation of the given nature, it follows (solely from Prop. vii.) that every substance is necessarily infinite.

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PROP. IX. *The more reality or being a thing has the greater the number of its attributes* (Def. iv.).

PROP. X. *Each particular attribute of the one substance must be conceived through itself.*

Proof. — An attribute is that which the intellect perceives of

substance, as constituting its essence (Def. iv.), and, therefore, must be conceived through itself (Def. iii.). *Q. E. D.*

PROP. XI. *God, or substance, consisting of infinite attributes, of which each expresses eternal and infinite essentiality, necessarily exists.*

Proof. — If this be denied, conceive, if possible, that God does not exist: then his essence does not involve existence. But this (by Prop. vii.) is absurd. Therefore God necessarily exists.

PROP. XII. *No attribute of substance can be conceived from which it would follow that substance can be divided.*

Proof. — The parts into which substance as thus conceived would be divided, either will retain the nature of substance, or they will not. If the former, then (by Prop. viii.) each part will necessarily be infinite, and (by Prop. vi.) self-caused, and (by Prop. v.) will perforce consist of a different attribute, so that, in that case, several substances could be formed out of one substance, which (by Prop. vi.) is absurd. Moreover, the parts (by Prop. ii.) would have nothing in common with their whole, and the whole (by Def. iv. and Prop. x.) could both exist and be conceived without its parts, which everyone will admit to be absurd. If we adopt the second alternative — namely, that the parts will not retain the nature of substance — then, if the whole substance were divided into equal parts, it would lose the nature of substance, and would cease to exist, which (by Prop. vii.) is absurd.

PROP. XIII. *Substance absolutely infinite is indivisible.*

Proof. — If it could be divided, the parts into which it was divided would either retain the nature of absolutely infinite substance, or they would not. If the former, we should have several substances of the same nature, which (by Prop. v.) is absurd. If the latter, then (by Prop. vii.) substance absolutely infinite could cease to exist, which (by Prop. xi.) is also absurd.

Corollary. — It follows, that no substance, and consequently no extended substance, in so far as it is substance, is divisible.

Note. — The indivisibility of substance may be more easily understood as follows. The nature of substance can only be

conceived as infinite, and by a part of substance, nothing else can be understood than finite substance, which (by Prop. viii involves a manifest contradiction.

PROP. XIV. *Besides God no substance can be granted or conceived.*

Proof. — As God is a being absolutely infinite, of whom no attribute that expresses the essence of substance can be denied (by Def. vi.), and he necessarily exists (by Prop. xi.); if any substance besides God were granted, it would have to be explained by some attribute of God, and thus two substances with the same attribute would exist, which (by Prop. v.) is absurd; therefore, besides God no substance can be granted, or, consequently, be conceived. If it could be conceived, it would necessarily have to be conceived as existent; but this (by the first part of this proof) is absurd. Therefore, besides God no substance can be granted or conceived. *Q. E. D.*

Corollary I. — Clearly, therefore: 1. God is one, that is (by Def. vi.) only one substance can be granted in the universe, and that substance is absolutely infinite, as we have already indicated (in the note to Prop. x.).

Corollary II. — It follows: 2. That extension and thought are either attributes of God or (by Ax. i.) accidents (*affectiones*) of the attributes of God.

PROP. XV. *Whatsoever is, is in God, and without God nothing can be, or be conceived.*

Proof. — Besides God, no substance is granted or can be con ceived (by Prop. xiv.), that is (by Def. iii.) nothing which is in itself and is conceived through itself. But modes (by Def. v.) can neither be, nor be conceived without substance; wherefore they can only be in the divine nature, and can only through it be conceived. But substances and modes form the sum total of existence (by Ax. i.), therefore, without God nothing can be, or be conceived. *Q. E. D.*

Note. — Some assert that God, like a man, consists of body and mind, and is susceptible of passions. How far such persons have strayed from the truth is sufficiently evident from what has been said. But these I pass over. . . . I myself have proved

sufficiently clearly, at any rate in my own judgment (Coroll. Prop. vi., and Note 2, Prop. viii.), that no substance can be produced or created by anything other than itself. Further, I showed (in Prop. xiv.), that besides God no substance can be granted or conceived. Hence we drew the conclusion that extended substance is one of the infinite attributes of God.

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PROP. XVI. *From the necessity of the divine nature must follow an infinite number of things in infinite ways — that is, all things which can fall within the sphere of infinite intellect.*

Proof. — This proposition will be clear to everyone, who remembers that from the given definition of any thing the intellect infers several properties, which really necessarily follow therefrom (that is, from the actual essence of the thing defined); and it infers more properties in proportion as the definition of the thing expresses more reality, that is, in proportion as the essence of the thing defined involves more reality. Now, as the divine nature has absolutely infinite attributes (by Def. vi.), of which each expresses infinite essence after its kind, it follows that from the necessity of its nature an infinite number of things (that is, everything which can fall within the sphere of an infinite intellect) must necessarily follow. *Q. E. D.*

Corollary I. — Hence it follows, that God is the efficient cause of all that can fall within the sphere of an infinite intellect.

Corollary II. — It also follows that God is a cause in himself, and not through an accident of his nature.

Corollary III. — It follows, thirdly, that God is the absolutely first cause.

PROP. XVII. *God acts solely by the laws of his own nature, and is not constrained by anyone.*

Proof. — We have just shown (in Prop. xvi.), that solely from the necessity of the divine nature, or, what is the same thing, solely from the laws of his nature, an infinite number of things absolutely follow in an infinite number of ways; and we proved (in Prop. xv.), that without God nothing can be nor be conceived; but that all things are in God. Wherefore nothing can exist outside himself, whereby he can be conditioned or

constrained to act. Wherefore God acts solely by the laws of his own nature, and is not constrained by anyone. *Q. E. D.*

Corollary I. — It follows: 1. That there can be no cause which, either extrinsically or intrinsically, besides the perfection of his own nature, moves God to act.

Corollary II. — It follows: 2. That God is the sole free cause. For God alone exists by the sole necessity of his nature (by Prop. xi. and Prop. xiv., Coroll. i.), and acts by the sole necessity of his nature, wherefore God is (by Def. vii.) the sole free cause. *Q.E.D.*

Note. — Others think that God is a free cause, because he can, as they think, bring it about, that those things which we have said follow from his nature — that is, which are in his power, should not come to pass, or should not be produced by him. But this is the same as if they said, that God could bring it about that it should not follow from the nature of a triangle, that its three interior angles should be equal to two right angles; or that from a given cause no effect should follow, which is absurd.

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PROP. XVIII. *God is the indwelling and not the transient cause of all things.*

Proof. — All things which are, are in God, and must be conceived through God (by Prop. xv.), therefore (by Prop. xvi., Coroll. i.) God is the cause of those things which are in him. This is our first point. Further, besides God there can be no substance (by Prop. xiv.), that is nothing in itself external to God. This is our second point. God, therefore, is the indwelling and not the transient cause of all things. *Q. E. D.*

PROP. XIX. *God, and all the attributes of God, are eternal.*

Proof. — God (by Def. vi.) is substance, which (by Prop. xi.) necessarily exists, that is (by Prop. vii.) existence appertains to its nature, or (what is the same thing) follows from its definition; therefore, God is eternal (by Def. viii.). Further, by the attributes of God we must understand that which (by Def. iv.) expresses the essence of the divine substance — in other words, that which appertains to substance: that, I say, should be involved in the attributes of substance. Now eternity appertains to the nature of substance (as I have already shown in Prop.

vii.); therefore, eternity must appertain to each of the attributes, and thus are all eternal. *Q. E. D.*

Note. — This proposition is also evident from the manner in which (in Prop. xi.) I demonstrated the existence of God; it is evident, I repeat, from that proof, that the existence of God, like his essence, is an eternal truth. Further (in Prop. xix. of my "Principles of the Cartesian Philosophy"), I have proved the eternity of God, in another manner, which I need not here repeat.

PROP. XX. *The existence of God and his essence are one and the same.*

Proof. — God (by the last Prop.) and all his attributes are eternal, that is (by Def. viii.) each of his attributes expresses existence. Therefore the same attributes of God which explain his eternal essence, explain at the same time his eternal existence — in other words, that which constitutes God's essence constitutes at the same time his existence. Wherefore God's existence and God's essence are one and the same. *Q. E. D.*

Coroll. I. — Hence it follows that God's existence, like His essence, is an eternal truth.

Coroll. II. — Secondly, it follows that God, and all the attributes of God, are unchangeable. For if they could be changed in respect to existence, they must also be able to be changed in respect to essence — that is, obviously, be changed from true to false, which is absurd.

PROP. XXI. *All things which follow from the absolute nature of any attribute of God must always exist and be infinite, or, in other words, are eternal and infinite through the said attribute.*

Proof. — Conceive, if it be possible (supposing the proposition to be denied), that something in some attribute of God can follow from the absolute nature of the said attribute, and that at the same time it is finite, and has a conditioned existence of duration; for instance, the idea of God expressed in the attribute thought. Now thought, in so far as it is supposed to be an attribute of God, is necessarily (by Prop. xi.) in its nature infinite. But, in so far as it possesses the idea of God, it is supposed finite. It cannot, however, be conceived as finite, unless it be limited by thought (by Def. ii.); but it is not limited by thought itself, in

so far as it has constituted the idea of God (for so far it is supposed to be finite); therefore, it is limited by thought, in so far as it has not constituted the idea of God, which nevertheless (by Prop. xi.) must necessarily exist.

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Prop. XXII. *Whatsoever follows from any attribute of God, in so far as it is modified by a modification, which exists necessarily and as infinite, through the said attribute, must also exist necessarily and as infinite.*

Proof. — The proof of this proposition is similar to that of the preceding one.

Prop. XXIII. *Every mode, which exists both necessarily and as infinite, must necessarily follow either from the absolute nature of some attribute of God, or from an attribute modified by a modification which exists necessarily, and as infinite.*

Proof. — A mode exists in something else, through which it must be conceived (Def. v.), that is (Prop. xv.), it exists solely in God, and solely through God can be conceived. If therefore a mode is conceived as necessarily existing and infinite, it must necessarily be inferred or perceived through some attribute of God, in so far as such attribute is conceived as expressing the infinity and necessity of existence, in other words (Def. viii.) eternity; that is, in so far as it is considered absolutely. A mode, therefore, which necessarily exists as infinite, must follow from the absolute nature of some attribute of God, either immediately (Prop. xxi.) or through the means of some modification, which follows from the absolute nature of the said attribute; that is, (by Prop. xxii.), which exists necessarily and as infinite.

Prop. XXIV. *The essence of things produced by God does not involve existence.*

Proof. — This proposition is evident from Def. i. For that of which the nature (considered in itself) involves existence is self-caused, and exists by the sole necessity of its own nature.

Corollary. — Hence it follows that God is not only the cause of things coming into existence, but also of their continuing in existence, that is, in scholastic phraseology. God is cause of the being of things (*essendi rerum*). For whether things exist, or

do not exist, whenever we contemplate their essence, we see that it involves neither existence nor duration; consequently, it cannot be the cause of either the one or the other. God must be the sole cause, inasmuch as to him alone does existence appertain. (Prop. xiv. Coroll. i.) *Q. E. D.*

PROP. XXV. *God is the efficient cause not only of the existence of things, but also of their essence.*

Proof. — If this be denied, then God is not the cause of the essence of things; and therefore the essence of things can (by Ax. iv.) be conceived without God. This (by Prop. xv.) is absurd. Therefore, God is the cause of the essence of things. *Q. E. D.*

Note. — This proposition follows more clearly from Prop. xvi. For it is evident thereby that, given the divine nature, the essence of things must be inferred from it, no less than their existence — in a word, God must be called the cause of all things, in the same sense as he is called the cause of himself. This will be made still clearer by the following corollary.

Corollary. — Individual things are nothing but modifications of the attributes of God, or modes by which the attributes of God are expressed in a fixed and definite manner. The proof appears from Prop. xv. and Def. v.

PROP. XXVI. *A thing which is conditioned to act in a particular manner, has necessarily been thus conditioned by God; and that which has not been conditioned by God cannot condition itself to act.*

Proof. — That by which things are said to be conditioned to act in a particular manner is necessarily something positive (this is obvious); therefore both of its essence and of its existence God by the necessity of his nature is the efficient cause (Props. xxv. and xvi.); this is our first point. Our second point is plainly to be inferred therefrom. For if a thing, which has not been conditioned by God, could condition itself, the first part of our proof would be false, and this, as we have shown, is absurd.

PROP. XXVII. *A thing, which has been conditioned by God to act in a particular way, cannot render itself unconditioned.*

Proof. — This proposition is evident from the third axiom.

PROP. XXVIII. — *Every individual thing, or everything which*

is finite and has a conditioned existence, cannot exist or be conditioned to act, unless it be conditioned for existence and action by a cause other than itself, which also is finite, and has a conditioned existence; and likewise this cause cannot in its turn exist, or be conditioned to act, unless it be conditioned for existence and action by another cause, which also is finite, and has a conditioned existence, and so on to infinity.

Proof. — Whatsoever is conditioned to exist and act, has been thus conditioned by God (by Prop. xxvi. and Prop. xxiv., Coroll.).

But that which is finite, and has a conditioned existence, cannot be produced by the absolute nature of any attribute of God; for whatsoever follows from the absolute nature of any attribute of God is infinite and eternal (by Prop. xxi.). It must, therefore, follow from some attribute of God, in so far as the said attribute is considered as in some way modified; for substance and modes make up the sum total of existence (by Ax. i. and Def. iii., v.), while modes are merely modifications of the attributes of God. But from God, or from any of his attributes, in so far as the latter is modified by a modification infinite and eternal, a conditioned thing cannot follow. Wherefore it must follow from, or be conditioned for, existence and action by God or one of his attributes, in so far as the latter are modified by some modification which is finite, and has a conditioned existence. This is our first point. Again, this cause or this modification (for the reason by which we established the first part of this proof) must in its turn be conditioned by another cause, which also is finite, and has a conditioned existence, and, again, this last by another (for the same reason); and so on (for the same reason) to infinity. *Q.E.D.*

PROP. XXIX. *Nothing in the universe is contingent, but all things are conditioned to exist and operate in a particular manner by the necessity of the divine nature.*

Proof. — Whatsoever is, is in God (Prop. xv.). But God cannot be called a thing contingent. For (by Prop. xi.) he exists necessarily, and not contingently. Further, the modes of the divine nature follow therefrom necessarily, and not contingently (Prop. xvi.); and they thus follow, whether we consider the divine

nature absolutely, or whether we consider it as in any way conditioned to act (Prop. xxvii.). Further, God is not only the cause of these modes, in so far as they simply exist (by Prop. xxiv., Coroll.), but also in so far as they are considered as conditioned for operating in a particular manner (Prop. xxvi.). If they be not conditioned by God (Prop. xxvi.), it is impossible, and not contingent, that they should condition themselves; contrariwise, if they be conditioned by God, it is impossible, and not contingent, that they should render themselves unconditioned. Wherefore all things are conditioned by the necessity of the divine nature, not only to exist, but also to exist and operate in a particular manner, and there is nothing that is contingent. *Q. E. D.*

Note. — Before going any further, I wish here to explain, what we should understand by nature viewed as active (*natura naturans*), and nature viewed as passive (*natura naturata*). I say to explain, or rather call attention to it, for I think that, from what has been said, it is sufficiently clear, that by nature viewed as active we should understand that which is in itself, and is conceived through itself, or those attributes of substance, which express eternal and infinite essence, in other words (Prop. xiv., Coroll. i., and Prop. xvii., Coroll. ii.) God, in so far as he is considered as a free cause.

By nature viewed as passive I understand all that which follows from the necessity of the nature of God, or of any of the attributes of God, that is, all the modes of the attributes of God, in so far as they are considered as things which are in God, and which without God cannot exist or be conceived.

Prop. XXX. *Intellect, in function (actu) finite, or in function infinite, must comprehend the attributes of God and the modifications of God, and nothing else.*

Proof. — A true idea must agree with its object (Ax. vi.); in other words (obviously), that which is contained in the intellect in representation must necessarily be granted in nature. But in nature (by Prop. xiv., Coroll. i.) there is no substance save God, nor any modifications save those (Prop. xv.) which are in God, and cannot without God either be or be conceived. Therefore the intellect, in function finite, or in function infinite, must com-

prehend the attributes of God and the modifications of God, and nothing else. *Q. E. D.*

PROP. XXXI. *The intellect in function, whether finite or infinite, as will, desire, love, &c., should be referred to passive nature and not to active nature.*

Proof. — By the intellect we do not (obviously) mean absolute thought, but only a certain mode of thinking, differing from other modes, such as love, desire, &c., and therefore (Def. v.) requiring to be conceived through absolute thought. It must (by Prop. xv. and Def. vi.), through some attribute of God which expresses the eternal and infinite essence of thought, be so conceived, that without such attribute it could neither be nor be conceived. It must therefore be referred to nature passive rather than to nature active, as must also the other modes of thinking. *Q. E. D.*

PROP. XXXII. *Will cannot be called a free cause, but only a necessary cause.*

Proof. — Will is only a particular mode of thinking, like intellect; therefore (by Prop. xxviii.) no volition can exist, nor be conditioned to act, unless it be conditioned by some cause other than itself, which cause is conditioned by a third cause, and so on to infinity. But if will be supposed infinite, it must also be conditioned to exist and act by God, not by virtue of his being substance absolutely infinite, but by virtue of his possessing an attribute which expresses the infinite and eternal essence of thought (by Prop. xxiii.). Thus, however it be conceived, whether as finite or infinite, it requires a cause by which it should be conditioned to exist and act. Thus (Def. vii.) it cannot be called a free cause, but only a necessary or constrained cause. *Q. E. D.*

Coroll. I. — Hence it follows, first, that God does not act according to freedom of the will.

Coroll. II. — It follows, secondly, that will and intellect stand in the same relation to the nature of God as do motion, and rest, and absolutely all natural phenomena, which must be conditioned by God (Prop. xxix.) to exist and act in a particular manner. For will, like the rest, stands in need of a cause, by which it is conditioned to exist and act in a particular manner.

And although, when will or intellect be granted, an infinite number of results may follow, yet God cannot on that account be said to act from freedom of the will, any more than the infinite number of results from motion and rest would justify us in saying that motion and rest act by free will. Wherefore will no more appertains to God than does anything else in nature, but stands in the same relation to him as motion, rest, and the like, which we have shown to follow from the necessity of the divine nature, and to be conditioned by it to exist and act in a particular manner.

PROP. XXXIII. *Things could not have been brought into being by God in any manner or in any order different from that which has in fact obtained.*

Proof. — All things necessarily follow from the nature of God (Prop. xvi.), and by the nature of God are conditioned to exist and act in a particular way (Prop. xxix.). If things, therefore, could have been of a different nature, or have been conditioned to act in a different way, so that the order of nature would have been different, God's nature would also have been able to be different from what it now is; and therefore (by Prop. xi.) that different nature also would have perforce existed, and consequently there would have been able to be two or more Gods. This (by Prop. xiv., Coroll. i.) is absurd. Therefore things could not have been brought into being by God in any other manner, &c. *Q. E. D.*

Note I. — As I have thus shown, more clearly than the sun at noonday, that there is nothing to justify us in calling things contingent, I wish to explain briefly what meaning we shall attach to the word contingent; but I will first explain the words necessary and impossible.

A thing is called necessary either in respect to its essence or in respect to its cause; for the existence of a thing necessarily follows, either from its essence and definition, or from a given efficient cause. For similar reasons a thing is said to be impossible; namely, inasmuch as its essence or definition involves a contradiction, or because no external cause is granted, which is conditioned to produce such an effect; but a thing can in no

respect be called contingent, save in relation to the imperfection of our knowledge.

A thing of which we do not know whether the essence does or does not involve a contradiction, or of which, knowing that it does not involve a contradiction, we are still in doubt concerning the existence, because the order of causes escapes us — such a thing, I say, cannot appear to us either necessary or impossible. Wherefore we call it contingent or possible.

. . . .

PROP. XXXIV. *God's power is identical with his essence.*

Proof. — From the sole necessity of the essence of God it follows that God is the cause of himself (Prop. xi.) and of all things (Prop. xvi. and Coroll.). Wherefore the power of God, by which he and all things are and act, is identical with his essence. *Q. E. D.*

PROP. XXXV. *Whatsoever we conceive to be in the power of God, necessarily exists.*

Proof. — Whatsoever is in God's power, must (by the last Prop.) be comprehended in his essence in such a manner, that it necessarily follows therefrom, and therefore necessarily exists. *Q. E. D.*

PROP. XXXVI. *There is no cause from whose nature some effect does not follow.*

Proof. — Whatsoever exists expresses God's nature or essence in a given conditioned manner (by Prop. xxv. Coroll.); that is (by Prop. xxxiv.), whatsoever exists, expresses in a given conditioned manner God's power, which is the cause of all things, therefore an effect must (by Prop. xvi.) necessarily follow. *Q. E. D.*

APPENDIX. — In the foregoing I have explained the nature and properties of God. I have shown that he necessarily exists, that he is one: that he is, and acts solely by the necessity of his own nature; that he is the free cause of all things, and how he is so; that all things are in God, and so depend on him, that without him they could neither exist nor be conceived; lastly, that all things are predetermined by God, not through his free will or absolute fiat, but from the very nature of God or infinite power

And although, when will or intellect be granted, an infinite number of results may follow, yet God cannot on that account be said to act from freedom of the will, any more than the infinite number of results from motion and rest would justify us in saying that motion and rest act by free will. Wherefore will no more appertains to God than does anything else in nature, but stands in the same relation to him as motion, rest, and the like, which we have shown to follow from the necessity of the divine nature, and to be conditioned by it to exist and act in a particular manner.

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Prop. XXXVI. *There is no cause from whose nature some effect does not follow.*

Proof. — Whatsoever exists expresses God's nature or essence in a given conditioned manner (by Prop. xxv. Coroll.); that is (by Prop. xxxiv.), whatsoever exists, expresses in a given conditioned manner God's power, which is the cause of all things, therefore an effect must (by Prop. xvi.) necessarily follow. *Q. E. D.*

Appendix. — In the foregoing I have explained the nature and properties of God. I have shown that he necessarily exists, that he is one: that he is, and acts solely by the necessity of his own nature; that he is the free cause of all things, and how he is so; that all things are in God, and so depend on him, that without him they could neither exist nor be conceived; lastly, that all things are predetermined by God, not through his free will or absolute fiat, but from the very nature of God or infinite power

I have further, where occasion offered, taken care to remove the prejudices, which might impede the comprehension of my demonstrations. Yet there still remain misconceptions not a few, which might and may prove very grave hindrances to the understanding of the concatenation of things, as I have explained it above. I have therefore thought it worth while to bring these misconceptions before the bar of reason.

All such opinions spring from the notion commonly entertained, that all things in nature act as men themselves act, namely, with an end in view. It is accepted as certain, that God himself directs all things to a definite goal (for it is said that God made all things for man, and man that he might worship him). I will, therefore, consider, this opinion, asking first why it obtains general credence, and why all men are naturally so prone to adopt it? secondly, I will point out its falsity; and, lastly, I will show how it has given rise to prejudices about good and bad, right and wrong, praise and blame, order and confusion, beauty and ugliness, and the like. However, this is not the place to deduce these misconceptions from the nature of the human mind: it will be sufficient here, if I assume as a starting point, what ought to be universally admitted, namely, that all men are born ignorant of the causes of things, that all have the desire to seek for what is useful to them, and that they are conscious of such desire. Herefrom it follows, first, that men think themselves free inasmuch as they are conscious of their volitions and desires, and never even dream, in their ignorance, of the causes which have disposed them so to wish and desire. Secondly, that men do all things for an end, namely, for that which is useful to them, and which they seek. Thus it comes to pass that they only look for a knowledge of the final causes of events, and when these are learned, they are content, as having no cause for further doubt. If they cannot learn such causes from external sources, they are compelled to turn to considering themselves, and reflecting what end would have induced them personally to bring about the given event, and thus they necessarily judge other natures by their own. Further, as they find in themselves and outside themselves many means which assist them not a little in their search

for what is useful, for instance, eyes for seeing, teeth for chewing, herbs and animals for yielding food, the sun for giving light, the sea for breeding fish, &c., they come to look on the whole of nature as a means for obtaining such conveniences. Now as they are aware, that they found these conveniences and did not make them, they think they have cause for believing, that some other being has made them for their use. As they look upon things as means, they cannot believe them to be self-created; but, judging from the means which they are accustomed to prepare for themselves, they are bound to believe in some ruler or rulers of the universe endowed with human freedom, who have arranged and adapted everything for human use. They are bound to estimate the nature of such rulers (having no information on the subject) in accordance with their own nature, and therefore they assert that the gods ordained everything for the use of man, in order to bind man to themselves and obtain from him the highest honour. Hence also it follows, that everyone thought out for himself, according to his abilities, a different way of worshipping God, so that God might love him more than his fellows, and direct the whole course of nature for the satisfaction of his blind cupidity and insatiable avarice. Thus the prejudice developed into superstition, and took deep root in the human mind; and for this reason everyone strove most zealously to understand and explain the final causes of things; but in their endeavour to show that nature does nothing in vain, *i. e.*, nothing which is useless to man, they only seem to have demonstrated that nature, the gods, and men are all mad together. Consider, I pray you, the result: among the many helps of nature they were bound to find some hindrances, such as storms, earthquakes, diseases, &c.: so they declared that such things happen, because the gods are angry at some wrong done them by men, or at some fault committed in their worship. Experience day by day protested and showed by infinite examples, that good and evil fortunes fall to the lot of pious and impious alike; still they would not abandon their inveterate prejudice, for it was more easy for them to class such contradictions among other unknown things of whose use they were ignorant, and thus to retain their actual and innate

condition of ignorance, than to destroy the whole fabric of their reasoning and start afresh. They therefore laid down as an axiom, that God's judgments far transcend human understanding. Such a doctrine might well have sufficed to conceal the truth from the human race for all eternity, if mathematics had not furnished another standard of verity in considering solely the essence and properties of figures without regard to their final causes. There are other reasons (which I need not mention here) besides mathematics, which might have caused men's minds to be directed to these general prejudices, and have led them to the knowledge of the truth.

I have now sufficiently explained my first point. There is no need to show at length, that nature has no particular goal in view, and that final causes are mere human figments. This, I think, is already evident enough, both from the causes and foundations on which I have shown such prejudice to be based, and also from Prop. xvi., and the Corollary of Prop. xxxii., and, in fact, all those propositions in which I have shown, that everything in nature proceeds from a sort of necessity, and with the utmost perfection. . . .

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Part II.—OF THE NATURE AND ORIGIN OF THE MIND

Preface

I now pass on to explaining the results, which must necessarily follow from the essence of God, or of the eternal and infinite being; not, indeed, all of them (for we proved in Part i., Prop. xvi., that an infinite number must follow in an infinite number of ways), but only those which are able to lead us, as it were by the hand, to the knowledge of the human mind and its highest blessedness.

Definitions

I. By *body* I mean a mode which expresses in a certain determinate manner the essence of God, in so far as he is considered as an extended thing. (See Pt. i., Prop. xxv., Coroll.)

II. I consider as belonging to the essence of a thing that, which being given, the thing is necessarily given also, and, which being removed, the thing is necessarily removed also; in other words, that without which the thing, and which itself without the thing, can neither be nor be conceived.

III. By *idea*, I mean the mental conception which is formed by the mind as a thinking thing.

Explanation. — I say *conception* rather than perception, because the word perception seems to imply that the mind is passive in respect to the object; whereas conception seems to express an activity of the mind.

IV. By *an adequate idea*, I mean an idea which, in so far as it is considered in itself, without relation to the object, has all the properties or intrinsic marks of a true idea.

Explanation. — I say *intrinsic*, in order to exclude that mark which is extrinsic, namely, the agreement between the idea and its object (*ideatum*).

V. *Duration* is the indefinite continuance of existing.

Explanation. — I say *indefinite*, because it cannot be determined through the existence itself of the existing thing, or by its efficient cause, which necessarily gives the existence of the thing, but does not take it away.

VI. *Reality* and *perfection* I use as synonymous terms.

VII. By *particular things*, I mean things which are finite and have a conditioned existence; but if several individual things concur in one action, so as to be all simultaneously the effect of one cause, I consider them all, so far, as one particular thing.

Axioms

I. The essence of man does not involve necessary existence, that is, it may, in the order of nature, come to pass that this or that man does or does not exist.

II. Man thinks.

III. Modes of thinking, such as love, desire, or any other of the passions, do not take place, unless there be in the same individual an idea of the thing loved, desired, &c. But the idea can exist without the presence of any other mode of thinking.

IV. We perceive that a certain body is affected in many ways.

V. We feel and perceive no particular things, save bodies and modes of thought.

N. B. *The postulates are given after the conclusion of* Prop. xiii.

PROPOSITIONS

PROP. I. *Thought is an attribute of God, or God is a thinking thing.*

Proof. — Particular thoughts, or this or that thought, are modes which, in a certain conditioned manner, express the nature of God (Pt. i., Prop. xxv., Coroll.). God therefore possesses the attribute (Pt. i., Def. v.) of which the concept is involved in all particular thoughts, which latter are conceived thereby. Thought, therefore, is one of the infinite attributes of God, which express God's eternal and infinite essence (Pt. i., Def. vi.). In other words, God is a thinking thing. *Q. E. D.*

Note. — This proposition is also evident from the fact, that we are able to conceive an infinite thinking being. For, in proportion as a thinking being is conceived as thinking more thoughts, so is it conceived as containing more reality or perfection. Therefore a being, which can think an infinite number of things in an infinite number of ways, is, necessarily, in respect of thinking, infinite. As, therefore, from the consideration of thought alone we conceive an infinite being, thought is necessarily (Pt. i., Defs. iv. and vi.) one of the infinite attributes of God, as we were desirous of showing.

PROP. II. *Extension is an attribute of God, or God is an extended thing.*

Proof. — The proof of this proposition is similar to that of the last.

PROP. III. *In God there is necessarily the idea not only of his essence, but also of all things which necessarily follow from his essence.*

Proof. — God (by the first Prop. of this Part) can think an infinite number of things in infinite ways, or (what is the same thing, by Prop. xvi., Part i.) can form the idea of his essence, and of all things which necessarily follow therefrom. Now all that

is in the power of God necessarily is (Pt. i., Prop. xxxv). Therefore, such an idea as we are considering necessarily is, and in God alone. *Q. E. D.* (Part i., Prop. xv.)

Note. — The multitude understand by the power of God the free will of God, and the right over all things that exist, which latter are accordingly generally considered as contingent. For it is said that God has the power to destroy all things, and to reduce them to nothing. Further, the power of God is very often likened to the power of kings. But this doctrine we have refuted (Pt. i., Prop. xxxii., Corolls. i. and ii.), and we have shown (Part i., Prop. xvi.) that God acts by the same necessity, as that by which he understands himself; in other words, as it follows from the necessity of the divine nature (as all admit), that God understands himself, so also does it follow by the same necessity that God performs infinite acts in infinite ways. We further showed (Part i., Prop. xxxiv.), that God's power is identical with God's essence in action; therefore it is as impossible for us to conceive God as not acting, as to conceive him as non-existent. If we might pursue the subject further, I could point out, that the power which is commonly attributed to God is not only human (as showing that God is conceived by the multitude as a man, or in the likeness of a man), but involves a negation of power. However, I am unwilling to go over the same ground so often. I would only beg the reader again and again, to turn over frequently in his mind what I have said in Part i. from Prop. xvi. to the end. No one will be able to follow my meaning, unless he is scrupulously careful not to confound the power of God with the human power and right of kings.

PROP. IV. *The idea of God, from which an infinite number of things follow in infinite ways, can only be one.*

Proof. — Infinite intellect comprehends nothing save the attributes of God and his modifications (Part i., Prop. xxx.). Now God is one (Part i., Prop. xiv., Coroll.). Therefore the idea of God, wherefrom an infinite number of things follow in infinite ways, can only be one. *Q. E. D.*

PROP. V. *The actual being of ideas owns God as its cause, only in so far as he is considered as a thinking thing, not in so far*

as he is unfolded in any other attribute; that is, the ideas both of the attributes of God and of particular things do not own as their efficient cause their objects (ideata) or the things perceived, but God himself in so far as he is a thinking thing.

Proof. — This proposition is evident from Prop. iii. of this Part. We there drew the conclusion, that God can form the idea of his essence, and of all things which follow necessarily therefrom, solely because he is a thinking thing, and not because he is the object of his own idea. Wherefore the actual being of ideas owns for cause God, in so far as he is a thinking thing. It may be differently proved as follows: the actual being of ideas is (obviously) a mode of thought, that is (Part i., Prop. xxv., Coroll.) a mode which expresses in a certain manner the nature of God, in so far as he is a thinking thing, and therefore (Part i., Prop. x.) involves the conception of no other attribute of God, and consequently (by Part i., Ax. iv.) is not the effect of any attribute save thought. Therefore the actual being of ideas owns God as its cause, in so far as he is considered as a thinking thing, &c. *Q. E. D.*

PROP. VI. *The modes of any given attribute are caused by God, in so far as he is considered through the attribute of which they are modes, and not in so far as he is considered through any other attribute.*

Proof. — Each attribute is conceived through itself, without any other (Part i., Prop. x.); wherefore the modes of each attribute involve the conception of that attribute, but not of any other. Thus (Part i., Ax. iv.) they are caused by God, only in so far as he is considered through the attribute whose modes they are, and not in so far as he is considered through any other. *Q. E. D.*

Corollary. — Hence the actual being of things, which are not modes of thought, does not follow from the divine nature, because that nature has prior knowledge of the things. Things represented in ideas follow, and are derived from their particular attribute, in the same manner, and with the same necessity as ideas follow (according to what we have shown) from the attribute of thought.

PROP. VII. *The order and connection of ideas is the same as the order and connnection of things.*

Proof. — This proposition is evident from Part i., Ax. iv. For the idea of everything that is caused depends on a knowledge of the cause, whereof it is an effect.

Corollary. — Hence God's power of thinking is equal to his realized power of action — that is, whatsoever follows from the infinite nature of God in the world of extension (*formaliter*), follows without exception in the same order and connection from the idea of God in the world of thought (*objective*).

Note. — Before going any further, I wish to recall to mind what has been pointed out above — namely, that whatsoever can be perceived by the infinite intellect as constituting the essence of substance, belongs altogether only to one substance: consequently, substance thinking and substance extended are one and the same substance, comprehended now through one attribute, now through the other. So, also, a mode of extension and the idea of that mode are one and the same thing, though expressed in two ways. This truth seems to have been dimly recognized by those Jews who maintained that God, God's intellect, and the things understood by God are identical. For instance, a circle existing in nature, and the idea of a circle existing, which is also in God, are one and the same thing displayed through different attributes. Thus, whether we conceive nature under the attribute of extension, or under the attribute of thought, or under any other attribute, we shall find the same order, or one and the same chain of causes — that is, the same things following in either case.

I said that God is the cause of an idea, — for instance, of the idea of a circle, — in so far as he is a thinking thing; and of a circle, in so far as he is an extended thing, simply because the actual being of the idea of a circle can only be perceived as a proximate cause through another mode of thinking, and that again through another, and so on to infinity; so that, so long as we consider things as modes of thinking, we must explain the order of the whole of nature, or the whole chain of causes, through the attribute of thought only. And, in so far as we consider things as modes of extension, we must explain the order of the whole of nature through the attribute of extension only; and so on,

in the case of other attributes. Wherefore of things as they are in themselves God is really the cause, inasmuch as he consists of infinite attributes. I cannot for the present explain my meaning more clearly.

PROP. VIII. *The ideas of particular things, or of modes, that do not exist, must be comprehended in the infinite idea of God, in the same way as the formal essences of particular things or modes are contained in the attributes of God.*

Proof. — This proposition is evident from the last; it is understood more clearly from the preceding note.

Corollary. — Hence, so long as particular things do not exist, except in so far as they are comprehended in the attributes of God, their representations in thought or ideas do not exist, except in so far as the infinite idea of God exists; and when particular things are said to exist, not only in so far as they are involved in the attributes of God, but also in so far as they are said to continue, their ideas will also involve existence, through which they are said to continue.

. . . .

PROP. X. *The being of substance does not appertain to the essence of man — in other words, substance does not constitute the actual being* [1] *of man.*

Proof. — The being of substance involves necessary existence (Part i., Prop. vii.). If, therefore, the being of substance appertains to the essence of man, substance being granted, man would necessarily be granted also (II. Def. ii.), and, consequently, man would necessarily exist, which is absurd (II. Ax. i.). Therefore, &c. *Q. E. D.*

Note. — This proposition may also be proved from I. v., in which it is shown that there cannot be two substances of the same nature; for as there may be many men, the being of substance is not that which constitutes the actual being of man. Again, the proposition is evident from the other properties of substance — namely, that substance is in its nature infinite, immutable, indivisible, &c., as anyone may see for himself.

Corollary. — Hence it follows, that the essence of man is constituted by certain modifications of the attributes of God. For

[1] *Forma.*

(by the last Prop.) the being of substance does not belong to the essence of man. That essence therefore (by i. 15) is something which is in God, and which without God can neither be nor be conceived, whether it be a modification (i. 25 Coroll.), or a mode which expresses God's nature in a certain conditioned manner.

. . . .

PROP. XI. *The first element, which constitutes the actual being of the human mind, is the idea of some particular thing actually existing.*

Proof. — The essence of man (by the Coroll. of the last Prop.) is constituted by certain modes of the attributes of God, namely (by II. Ax. ii.), by the modes of thinking, of all which (by II. Ax. iii.) the idea is prior in nature, and, when the idea is given, the other modes (namely, those of which the idea is prior in nature) must be in the same individual (by the same Axiom). Therefore an idea is the first element constituting the human mind. But not the idea of a non-existent thing, for then (II. viii. Coroll.) the idea itself cannot be said to exist; it must therefore be the idea of something actually existing. But not of an infinite thing. For an infinite thing (I. xxi., xxii.), must always necessarily exist; this would (by II. Ax. i.) involve an absurdity. Therefore the first element, which constitutes the actual being of the human mind, is the idea of something actually existing. *Q. E. D.*

Corollary. — Hence it follows, that the human mind is part of the infinite intellect of God; thus when we say, that the human mind perceives this or that, we make the assertion, that God has this or that idea, not in so far as he is infinite, but in so far as he is displayed through the nature of the human mind, or in so far as he constitutes the essence of the human mind; and when we say that God has this or that idea, not only in so far as he constitutes the essence of the human mind, but also in so far as he, simultaneously with the human mind, has the further idea of another thing, we assert that the human mind perceives a thing in part or inadequately.

. . . .

PROP. XXXII. *All ideas, in so far as they are referred to God, are true.*

Proof. —All ideas which are in God agree in every respect with their objects (II. vii. Coroll.), therefore (I. Ax. vi.) they are all true. *Q. E. D.*

PROP. XXXIII. *There is nothing positive in ideas, which causes them to be called false.*

Proof. — If this be denied, conceive, if possible, a positive mode of thinking, which should constitute the distinctive quality of falsehood. Such a mode of thinking cannot be in God (II. xxxii.); external to God it cannot be or be conceived (I. xv.). Therefore there is nothing positive in ideas which causes them to be called false. *Q. E. D.*

PROP. XXXIV. *Every idea, which in us is absolute or adequate and perfect, is true.*

Proof. — When we say that an idea in us is adequate and perfect, we say, in other words (II. xi. Coroll.), that the idea is adequate and perfect in God, in so far as he constitutes the essence of our mind; consequently (II. xxxii.), we say that such an idea is true. *Q. E. D.*

PROP. XXXV. *Falsity consists in the privation of knowledge, which inadequate, fragmentary, or confused ideas involve.*

Proof. — There is nothing positive in ideas, which causes them to be called false (II. xxxiii.); but falsity cannot consist in simple privation (for minds, not bodies, are said to err and to be mistaken), neither can it consist in absolute ignorance, for ignorance and error are not identical; wherefore it consists in the privation of knowledge, which inadequate, fragmentary, or confused ideas involve. *Q. E. D.*

. . . .

PROP. XXXVI. *Inadequate and confused ideas follow by the same necessity, as adequate or clear and distinct ideas.*

Proof. — All ideas are in God (I. xv.), and in so far as they are referred to God are true (II. xxxii.) and (II. vii. Coroll.) adequate; therefore there are no ideas confused or inadequate, except in respect to a particular mind (cf. II. xxiv. and xxviii.); therefore all ideas, whether adequate or inadequate, follow by the same necessity (II. vi.). *Q. E. D.*

PROP. XL. *Whatsoever ideas in the mind follow from ideas which are therein adequate, are also themselves adequate.*

Proof. — This proposition is self-evident. For when we say that an idea in the human mind follows from ideas which are therein adequate, we say, in other words (II. xi. Coroll.), that an idea is in the divine intellect, whereof God is the cause, not in so far as he is infinite, nor in so far as he is affected by the ideas of very many particular things, but only in so far as he constitutes the essence of the human mind.

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Note II. — From all that has been said above it is clear, that we, in many cases, perceive and form our general notions: — (1) From particular things represented to our intellect fragmentarily, confusedly, and without order through our senses (II. xxix. Coroll.); I have settled to call such perceptions by the name of knowledge from the mere suggestions of experience. (2) From symbols, *e. g.*, from the fact of having read or heard certain words we remember things and form certain ideas concerning them, similar to those through which we imagine things (II. xviii. note). I shall call both these ways of regarding things *knowledge of the first kind*, *opinion*, or *imagination.* (3) From the fact that we have notions common to all men, and adequate ideas of the properties of things (II. xxxviii. Coroll., xxxix. and Coroll. and xl.); this I call *reason* and *knowledge of the second kind.* Besides these two kinds of knowledge, there is, as I will hereafter show, a third kind of knowledge, which we will call intuition. This kind of knowledge proceeds from an adequate idea of the absolute essence of certain attributes of God to the adequate knowledge of the essence of things. I will illustrate all three kinds of knowledge by a single example. Three numbers are given for finding a fourth, which shall be to the third as the second is to the first. Tradesmen without hesitation multiply the second by the third, and divide the product by the first; either because they have not forgotten the rule which they received from a master without any proof, or because they have often made trial of it with simple numbers, or by virtue of the proof of the nineteenth proposition of the seventh book of Euclid, namely, in virtue of the general property of proportionals.

But with very simple numbers there is no need of this. For

instance, one, two, three, being given, everyone can see that the fourth proportional is six; and this is much clearer, because we infer the fourth number from an intuitive grasping of the ratio, which the first bears to the second.

PROP. XLI. *Knowledge of the first kind is the only source of falsity, knowledge of the second and third kinds is necessarily true.*

Proof. — To knowledge of the first kind we have (in the foregoing note) assigned all those ideas, which are inadequate and confused; therefore this kind of knowledge is the only source of falsity (II. xxxv.). Furthermore, we assigned to the second and third kinds of knowledge those ideas which are adequate; therefore these kinds are necessarily true (II. xxxiv.). *Q. E. D.*

PROP. XLII. *Knowledge of the second and third kinds, not knowledge of the first kind, teaches us to distinguish the true from the false.*

Proof. — This proposition is self-evident. He, who knows how to distinguish between true and false, must have an adequate idea of true and false. That is (II. xl., note ii.), he must know the true and the false by the second or third kind of knowledge.

PROP. XLIII. *He, who has a true idea, simultaneously knows that he has a true idea, and cannot doubt of the truth of the thing perceived.*

Proof. — A true idea in us is an idea which is adequate in God, in so far as he is displayed through the nature of the human mind (II. xi. Coroll). Let us suppose that there is in God, in so far as he is displayed through the human mind, an adequate idea, A. The idea of this idea must also necessarily be in God, and be referred to him in the same way as the idea A (by II, xx., whereof the proof is of universal application). But the idea A is supposed to be referred to God, in so far as he is displayed through the human mind; therefore, the idea of the idea A must be referred to God in the same manner; that is (by II. xi. Coroll.), the adequate idea of the idea A will be in the mind, which has the adequate idea A; therefore he, who has an adequate idea or knows a thing truly (II. xxxiv.), must at the

same time have an adequate idea or true knowledge of his knowledge; that is, obviously, he must be assured. *Q. E. D.*

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PROP. XLIV. *It is not in the nature of reason to regard things as contingent, but as necessary.*

Proof. — It is in the nature of reason to perceive things truly (II. xli.), namely (I. Ax. vi.), as they are in themselves — that is (I. xxix.), not as contingent, but as necessary. *Q. E. D.*

Corollary I. — Hence it follows, that it is only through our imagination that we consider things, whether in respect to the future or the past, as contingent.

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Corollary II. — It is in the nature of reason to perceive things under a certain form of eternity (*sub quâdam æternitatis specie*).

Proof. — It is in the nature of reason to regard things, not as contingent, but as necessary (II. xliv.). Reason perceives this necessity of things (II. xli.) truly — that is (I. Ax. vi.), as it is in itself. But (I. xvi.) this necessity of things is the very necessity of the eternal nature of God; therefore, it is in the nature of reason to regard things under this form of eternity. We may add that the bases of reason are the notions (II. xxxviii.), which answer to things common to all, and which (II, xxxvii.) do not answer to the essence of any particular thing: which must therefore be conceived without any relation to time, under a certain form of eternity.

PROP. XLV. *Every idea of every body, or of every particular thing actually existing, necessarily involves the eternal and infinite essence of God.*

Proof. — The idea of a particular thing actually existing necessarily involves both the existence and the essence of the said thing (II. viii.). Now particular things cannot be conceived without God (I. xv.); but, inasmuch as (II. vi.) they have God for their cause, in so far as he is regarded under the attribute of which the things in question are modes, their ideas must necessarily involve (I, Ax. iv.) the conception of the attribute of those ideas — that is (I. vi.), the eternal and infinite essence of God. *Q. E. D.*

Note. — By existence I do not here mean duration — that is, existence in so far as it is conceived abstractedly, and as a certain form of quantity. I am speaking of the very nature of existence, which is assigned to particular things, because they follow in infinite numbers and in infinite ways from the eternal necessity of God's nature I. (xvi.). I am speaking, I repeat, of the very existence of particular things, in so far as they are in God. For although each particular thing be conditioned by another particular thing to exist in a given way, yet the force whereby each particular thing perseveres in existing follows from the eternal necessity of God's nature (cf. I. xxiv. Coroll.).

PROP. XLVI. *The knowledge of the eternal and infinite essence of God which every idea involves is adequate and perfect.*

Proof. — The proof of the last proposition is universal; and whether a thing be considered as a part or a whole, the idea thereof, whether of the whole or of a part (by the last Prop.), will involve God's eternal and infinite essence. Wherefore, that, which gives knowledge of the eternal and infinite essence of God, is common to all, and is equally in the part and in the whole; therefore (II. xxxviii.) this knowledge will be adequate. *Q. E. D.*

PROP. XLVII. *The human mind has an adequate knowledge of the eternal and infinite essence of God.*

Proof. — The human mind has ideas (II. xxii.), from which (II. xxiii.) it perceives itself and its own body (II. xix.) and external bodies (II. xvi. Coroll. I. and II. xvii.) as actually existing; therefore (II. xlv. xlvi.) it has an adequate knowledge of the eternal and infinite essence of God. *Q. E. D.*

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PROP. XLVIII. *In the mind there is no absolute or free will; but the mind is determined to wish this or that by a cause, which has also been determined by another cause, and this last by another cause, and so on to infinity.*

Proof. — The mind is a fixed and definite mode of thought (II. xi.), therefore it cannot be the free cause of its actions (I. xvii. Coroll. ii.); in other words, it cannot have an absolute faculty of positive or negative volition; but (by I. xxviii.) it must be determined by a cause, which has also been determined by another cause, and this last by another, &c. *Q. E. D.*

Note. — In the same way it is proved, that there is in the mind no absolute faculty of understanding, desiring, loving, &c. Whence it follows, that these and similar faculties are either entirely fictitious, or are merely abstract or general terms, such as we are accustomed to put together from particular things. . . .

PROP. XLIX. *There is in the mind no volition or affirmation and negation, save that which an idea, inasmuch as it is an idea, involves.*

Proof. — There is in the mind no absolute faculty of positive or negative volition, but only particular volitions, namely, this or that affirmation, and this or that negation. Now let us conceive a particular volition, namely, the mode of thinking whereby the mind affirms, that the three interior angles of a triangle are equal to two right angles. This affirmation involves the conception or idea of a triangle, that is, without the idea of a triangle it cannot be conceived. It is the same thing to say, that the concept A must involve the concept B, as it is to say, that A cannot be conceived without B. Further, this affirmation cannot be made (II. Ax. iii.) without the idea of a triangle. Therefore, this affirmation can neither be nor be conceived, without the idea of a triangle. Again, this idea of a triangle must involve this same affirmation, namely, that its three interior angles are equal to two right angles. Wherefore, and *vice versa*, this idea of a triangle can neither be nor be conceived without this affirmation, therefore, this affirmation belongs to the essence of the idea of a triangle, and is nothing besides. What we have said of this volition (inasmuch as we have selected it at random) may be said of any other volition, namely, that it is nothing but an idea. *Q. E. D.*

Corollary. — Will and understanding are one and the same.

Proof. — Will and understanding are nothing beyond the individual volitions and ideas (II. xlviii. and note). But a particular volition and a particular idea are one and the same (by the foregoing Prop.); therefore, will and understanding are one and the same. *Q. E. D.*

Note. — We have thus removed the cause which is commonly assigned for error. For we have shown above, that falsity con-

sists solely in the privation of knowledge involved in ideas which are fragmentary and confused. Wherefore, a false idea, inasmuch as it is false, does not involve certainty. . . .

It remains to point out the advantages of a knowledge of this doctrine as bearing on conduct, and this may be easily gathered from what has been said. The doctrine is good,

1. Inasmuch as it teaches us to act solely according to the decree of God, and to be partakers in the Divine nature, and so much the more, as we perform more perfect actions and more and more understand God. Such a doctrine not only completely tranquillizes our spirit, but also shows us where our highest happiness or blessedness is, namely, solely in the knowledge of God, whereby we are led to act only as love and piety shall bid us. We may thus clearly understand, how far astray from a true estimate of virtue are those who expect to be decorated by God with high rewards for their virtue, and their best actions, as for having endured the direst slavery; as if virtue and the service of God were not in itself happiness and perfect freedom.

2. Inasmuch as it teaches us, how we ought to conduct ourselves with respect to the gifts of fortune, or matters which are not in our own power, and do not follow from our nature. For it shows us, that we should await and endure fortune's smiles or frowns with an equal mind, seeing that all things follow from the eternal decree of God by the same necessity, as it follows from the essence of a triangle, that the three angles are equal to two right angles.

3. This doctrine raises social life, inasmuch as it teaches us to hate no man, neither to despise, to deride, to envy, or to be angry with any. Further, as it tells us that each should be content with his own, and helpful to his neighbour, not from any womanish pity, favour, or superstition, but solely by the guidance of reason, according as the time and occasion demand, as I will show in Part III.

4. Lastly, this doctrine confers no small advantage on the commonwealth; for it teaches how citizens should be governed and led, not so as to become slaves, but so that they may freely do whatsoever things are best.

Part V. — OF THE POWER OF THE UNDERSTANDING, OR OF HUMAN FREEDOM

Preface

At length I pass to the remaining portion of my Ethics, which is concerned with the way leading to freedom. I shall therefore treat therein of the power of the reason, showing how far the reason can control the emotions, and what is the nature of Mental Freedom or Blessedness; we shall then be able to see, how much more powerful the wise man is than the ignorant. It is no part of my design to point out the method and means whereby the understanding may be perfected, nor to show the skill whereby the body may be so tended, as to be capable of the due performance of its functions. The latter question lies in the province of Medicine, the former in the province of Logic. Here, therefore, I repeat, I shall treat only of the power of the mind, or of reason; and I shall mainly show the extent and nature of its dominion over the emotions, for their control and moderation.

. . . .

Axioms

I. If two contrary actions be started in the same subject, a change must necessarily take place, either in both, or in one of the two, and continue until they cease to be contrary.

II. The power of an effect is defined by the power of its cause, in so far as its essence is explained or defined by the essence of its cause.

(This axiom is evident from III. vii.)

Prop. I. *Even as thoughts and the ideas of things are arranged and associated in the mind, so are the modifications of body or the images of things precisely in the same way arranged and associated in the body.*

Proof. — The order and connection of ideas is the same (II. vii.) as the order and connection of things, and *vice versa* the order and connection of things is the same (II. vi. Coroll. and vii.) as the order and connection of ideas. Wherefore, even

as the order and connection of ideas in the mind takes place according to the order and association of modifications of the body (II. xviii.), so *vice versa* (III. ii.) the order and connection of modifications of the body takes place in accordance with the manner, in which thoughts and the ideas of things are arranged and associated in the mind. *Q. E. D.*

PROP. II. *If we remove a disturbance of the spirit, or emotion, from the thought of an external cause, and unite it to other thoughts, then will the love or hatred towards that external cause, and also the vacillations of spirit which arise from these emotions, be destroyed.*

Proof. — That, which constitutes the reality of love or hatred, is pleasure or pain, accompanied by the idea of an external cause (Def. of the Emotions, vi. vii.); wherefore, when this cause is removed, the reality of love or hatred is removed with it; therefore these emotions and those which arise therefrom are destroyed. *Q. E. D.*

PROP. III. *An emotion, which is a passion, ceases to be a passion, as soon as we form a clear and distinct idea thereof.*

Proof. — An emotion, which is a passion, is a confused idea (by the general Def. of the Emotions). If, therefore, we form a clear and distinct idea of a given emotion, that idea will only be distinguished from the emotion, in so far as it is referred to the mind only, by reason (II. xxi. and note); therefore (III. iii.), the emotion will cease to be a passion. *Q. E. D.*

Corollary. — An emotion therefore becomes more under our control, and the mind is less passive in respect to it, in proportion as it is more known to us.

PROP. IV. *There is no modification of the body, whereof we cannot form some clear and distinct conception.*

Proof. — Properties which are common to all things can only be conceived adequately (II. xxxviii.); therefore (II. xii. and Lemma ii. after II. xiii.) there is no modification of the body, whereof we cannot form some clear and distinct conception. *Q. E. D.*

Corollary. — Hence it follows that there is no emotion, whereof we cannot form some clear and distinct conception. For an emotion is the idea of a modification of the body (by the general

Def. of the Emotions), and must therefore (by the preceding Prop.) involve some clear and distinct conception.

Note. — Seeing that there is nothing which is not followed by an effect (I. xxxvi.), and that we clearly and distinctly understand whatever follows from an idea, which in us is adequate (II. xl.), it follows that everyone has the power of clearly and distinctly understanding himself and his emotions, if not absolutely, at any rate in part, and consequently of bringing it about, that he should become less subject to them. To attain this result, therefore, we must chiefly direct our efforts to acquiring, as far as possible, a clear and distinct knowledge of every emotion, in order that the mind may thus, through emotion, be determined to think of those things which it clearly and distinctly perceives, and wherein it fully acquiesces: and thus that the emotion itself may be separated from the thought of an external cause, and may be associated with true thoughts; whence it will come to pass, not only that love, hatred, &c. will be destroyed (V. ii.), but also that the appetites or desires, which are wont to arise from such emotion, will become incapable of being excessive (IV. lxi.). . . .

Prop. V. *An emotion towards a thing, which we conceive simply, and not as necessary, or as contingent, or as possible, is, other conditions being equal, greater than any other emotion.*

Proof. — An emotion towards a thing, which we conceive to be free, is greater than one towards what we conceive to be necessary (III. xlix.), and, consequently, still greater than one towards what we conceive as possible, or contingent (IV. xi.). But to conceive a thing as free can be nothing else than to conceive it simply, while we are in ignorance of the causes whereby it has been determined to action (II. xxxv. note); therefore, an emotion towards a thing which we conceive simply is, other conditions being equal, greater than one, which we feel towards what is necessary, possible, or contingent, and, consequently, it is the greatest of all. *Q. E. D.*

Prop. VI. *The mind has greater power over the emotions and is less subject thereto, in so far as it understands all things as necessary.*

Proof. — The mind understands all things to be necessary

(I. xxix.) and to be determined to existence and operation by an infinite chain of causes; therefore (by the foregoing Proposition), it thus far brings it about, that it is less subject to the emotions arising therefrom, and (III. xlviii.) feels less emotion towards the things themselves. *Q. E. D.*

Note. — The more this knowledge, that things are necessary, is applied to particular things, which we conceive more distinctly and vividly, the greater is the power of the mind over the emotions, as experience also testifies. For we see, that the pain arising from the loss of any good is mitigated, as soon as the man who has lost it perceives, that it could not by any means have been preserved. . . .

Prop. XIV. *The mind can bring it about, that all bodily modifications or images of things may be referred to the idea of God.*

Proof. — There is no modification of the body, whereof the mind may not form some clear and distinct conception (V. iv.); wherefore it can bring it about, that they should all be referred to the idea of God (I. xv.). *Q. E. D.*

Prop. XV. *He who clearly and distinctly understands himself and his emotions loves God, and so much the more in proportion as he more understands himself and his emotions.*

Proof. — He who clearly and distinctly understands himself and his emotions feels pleasure (III. liii.), and this pleasure is (by the last Prop.) accompanied by the idea of God; therefore (Def. of the Emotions, vi.) such an one loves God, and (for the same reason) so much the more in proportion as he more understands himself and his emotions. *Q. E. D.*

Prop. XVI. *This love towards God must hold the chief place in the mind.*

Proof. — For this love is associated with all the modifications of the body (V. xiv.) and is fostered by them all (V. xv.); therefore (V. xi.), it must hold the chief place in the mind. *Q. E. D.*

Prop. XVII. *God is without passions, neither is he affected by any emotion of pleasure or pain.*

Proof. — All ideas, in so far as they are referred to God, are true (II. xxxii.), that is (II. Def. iv.) adequate; and therefore (by the general Def. of the Emotions) God is without passions.

Again, God cannot pass either to a greater or to a lesser perfection (I. xx. Coroll. ii.); therefore (by Def. of the Emotions, ii. iii.) he is not affected by any emotion of pleasure or pain.

Corollary. — Strictly speaking, God does not love or hate anyone. For God (by the foregoing Prop.) is not affected by any emotion of pleasure or pain, consequently (Def. of the Emotions, vi. vii.) he does not love or hate anyone.

PROP. XVIII. *No one can hate God.*

Proof. — The idea of God which is in us is adequate and perfect (II. xlvi., xlvii.); wherefore, in so far as we contemplate God. we are active (III. iii.); consequently (III. lix.) there can be no pain accompanied by the idea of God, in other words (Def. of the Emotions, vii.), no one can hate God. *Q. E. D.*

Corollary. — Love towards God cannot be turned into hate.

Note. — It may be objected that, as we understand God as the cause of all things, we by that very fact regard God as the cause of pain. But I make answer, that, in so far as we understand the causes of pain, it to that extent (V. iii.) ceases to be a passion, that is, it ceases to be pain (III. lix.); therefore, in so far as we understand God to be the cause of pain, we to that extent feel pleasure.

PROP. XIX. *He, who loves God, cannot endeavour that God should love him in return.*

Proof. — For, if a man should so endeavour, he would desire (V. xvii. Coroll.) that God, whom he loves, should not be God, and consequently he would desire to feel pain (III. xix.); which is absurd (III. xxviii.). Therefore, he who loves God, &c. *Q. E. D.*

PROP. XX. *This love towards God cannot be stained by the emotion of envy or jealousy: contrariwise, it is the more fostered, in proportion as we conceive a greater number of men to be joined to God by the same bond of love.*

Proof. — This love towards God is the highest good which we can seek for under the guidance of reason (IV. xxviii.), it is common to all men (IV. xxxvi.), and we desire that all should rejoice therein (IV. xxxvii.); therefore (Def. of the Emotions, xxiii.), it cannot be stained by the emotion of envy, nor by the

emotion of jealousy (V. xviii., see definition of Jealousy, III. xxxv. note); but, contrariwise, it must needs be the more fostered, in proportion as we conceive a greater number of men to rejoice therein. *Q. E. D.*

Note. — We can in the same way show, that there is no emotion directly contrary to this love, whereby this love can be destroyed; therefore we may conclude, that this love towards God is the most constant of all the emotions, and that, in so far as it is referred to the body, it cannot be destroyed, unless the body be destroyed also. As to its nature, in so far as it is referred to the mind only, we shall presently inquire.

I have now gone through all the remedies against the emotions, or all that the mind, considered in itself alone, can do against them. Whence it appears that the mind's power over the emotions consists: —

I. In the actual knowledge of the emotions (V. iv. note).

II. In the fact that it separates the emotions from the thought of an external cause, which we conceive confusedly (V. ii. and iv. note).

III. In the fact, that, in respect to time, the emotions referred to things, which we distinctly understand, surpass those referred to what we conceive in a confused and fragmentary manner (V. vii.).

IV. In the number of causes whereby those modifications [1] are fostered, which have regard to the common properties of things or to God (V. ix. xi.).

V. Lastly, in the order wherein the mind can arrange and associate, one with another, its own emotions (V. x. note and xii. xiii. xiv.).

But, in order that this power of the mind over the emotions may be better understood, it should be specially observed that the emotions are called by us strong, when we compare the emotion of one man with the emotion of another, and see that one man is more troubled than another by the same emotion; or when we are comparing the various emotions of the same man one with another, and find that he is more affected or stirred by one emo-

[1] *Affectiones.* Camerer reads *affectus*, emotions.

tion than by another. For the strength of every emotion is defined by a comparison of our own power with the power of an external cause. Now the power of the mind is defined by knowledge only, and its infirmity or passion is defined by the privation of knowledge only: it therefore follows, that that mind is most passive, whose greatest part is made up of inadequate ideas, so that it may be characterized more readily by its passive states than by its activities: on the other hand, that mind is most active, whose greatest part is made up of adequate ideas, so that, although it may contain as many inadequate ideas as the former mind, it may yet be more easily characterized by ideas attributable to human virtue, than by ideas which tell of human infirmity. Again, it must be observed, that spiritual unhealthiness and misfortunes can generally be traced to excessive love for something which is subject to many variations, and which we can never become masters of. For no one is solicitous or anxious about anything, unless he loves it; neither do wrongs, suspicions, enmities, &c. arise, except in regard to things whereof no one can be really master.

We may thus readily conceive the power which clear and distinct knowledge, and especially that third kind of knowledge (II. xlvii. note), founded on the actual knowledge of God, possesses over the emotions: if it does not absolutely destroy them, in so far as they are passions (V. iii. and iv. note); at any rate, it causes them to occupy a very small part of the mind (V. xiv.). Further, it begets a love towards a thing immutable and eternal (V. xv.), whereof we may really enter into possession (II. xlv.); neither can it be defiled with those faults which are inherent in ordinary love; but it may grow from strength to strength, and may engross the greater part of the mind, and deeply penetrate it.

And now I have finished with all that concerns this present life: for, as I said in the beginning of this note, I have briefly described all the remedies against the emotions. And this every one may readily have seen for himself, if he has attended to what is advanced in the present note, and also to the definitions of the mind and its emotions, and, lastly, to Propositions i. and iii. of Part III. It is now, therefore, time to pass on to those matters,

which appertain to the duration of the mind, without relation to the body.

Prop. XXI. *The mind can only imagine anything, or remember what is past, while the body endures.*

Proof. — The mind does not express the actual existence of its body, nor does it imagine the modifications of the body as actual, except while the body endures (II. viii. Coroll.); and, consequently (II. xxvi.), it does not imagine any body as actually existing, except while its own body endures. Thus it cannot imagine anything (for definition of Imagination, see II. xvii. note), or remember things past, except while the body endures (see definition of Memory, II. xviii. note). *Q. E. D.*

Prop. XXII. *Nevertheless in God there is necessarily an idea, which expresses the essence of this or that human body under the form of eternity.*

Proof. — God is the cause, not only of the existence of this or that human body, but also of its essence (I. xxv.). This essence, therefore, must necessarily be conceived through the very essence of God (I. Ax. iv.), and be thus conceived by a certain eternal necessity (I. xvi.); and this conception must necessarily exist in God (II. iii.). *Q. E. D.*

Prop. XXIII. *The human mind cannot be absolutely destroyed with the body, but there remains of it something which is eternal.*

Proof. — There is necessarily in God a concept or idea, which expresses the essence of the human body (last Prop.), which, therefore, is necessarily something appertaining to the essence of the human mind (II. xiii.). But we have not assigned to the human mind any duration, definable by time, except in so far as it expresses the actual existence of the body, which is explained through duration, and may be defined by time — that is (II. viii. Coroll.), we do not assign to it duration, except while the body endures. Yet, as there is something, notwithstanding, which is conceived by a certain eternal necessity through the very essence of God (last Prop.), this something, which appertains to the essence of the mind, will necessarily be eternal. *Q. E. D.*

Note. — This idea, which expresses the essence of the body under the form of eternity, is, as we have said, a certain mode

of thinking, which belongs to the essence of the mind, and is necessarily eternal. Yet it is not possible that we should remember that we existed before our body, for our body can bear no trace of such existence, neither can eternity be defined in terms of time, or have any relation to time. But, notwithstanding, we feel and know that we are eternal. For the mind feels those things that it conceives by understanding, no less than those things that it remembers. For the eyes of the mind, whereby it sees and observes things, are none other than proofs. Thus, although we do not remember that we existed before the body, yet we feel that our mind, in so far as it involves the essence of the body, under the form of eternity, is eternal, and that thus its existence cannot be defined in terms of time, or explained through duration. Thus our mind can only be said to endure, and its existence can only be defined by a fixed time, in so far as it involves the actual existence of the body. Thus far only has it the power of determining the existence of things by time, and conceiving them under the category of duration.

PROP. XXIV. *The more we understand particular things, the more do we understand God.*

Proof. — This is evident from I. xxv. Coroll.

PROP. XXV. *The highest endeavour of the mind, and the highest virtue is to understand things by the third kind of knowledge.*

Proof. — The third kind of knowledge proceeds from an adequate idea of certain attributes of God to an adequate knowledge of the essence of things (see its definition II. xl. note ii.); and, in proportion as we understand things more in this way, we better understand God (by the last Prop.); therefore (IV. xxviii.) the highest virtue of the mind, that is (IV. Def. viii.) the power, or nature, or (III. vii.) highest endeavour of the mind, is to understand things by the third kind of knowledge. *Q. E. D.*

PROP. XXVI. *In proportion as the mind is more capable of understanding things by the third kind of knowledge, it desires more to understand things by that kind.*

Proof. — This is evident. For, in so far as we conceive the mind to be capable of conceiving things by this kind of know-

ledge, we, to that extent, conceive it as determined thus to conceive things; and consequently (Def. of the Emotions, i.), the mind desires so to do, in proportion as it is more capable thereof. *Q. E. D.*

PROP. XXVII. *Fom this third kind of knowledge arises the highest possible mental acquiescence.*

Proof. — The highest virtue of the mind is to know God (IV. xxviii.), or to understand things by the third kind of knowledge (V. xxv.), and this virtue is greater in proportion as the mind knows things more by the said kind of knowledge (V. xxiv.): consequently, he who knows things by this kind of knowledge passes to the summit of human perfection, and is therefore (Def. of the Emotions, ii.) affected by the highest pleasure, such pleasure being accompanied by the idea of himself and his own virtue; thus (Def. of the Emotions, xxv.), from this kind of knowledge arises the highest possible acquiescence. *Q. E. D.*

PROP. XXVIII. *The endeavour or desire to know things by the third kind of knowledge cannot arise from the first, but from the second kind of knowledge.*

Proof. — This proposition is self-evident. For whatsoever we understand clearly and distinctly, we understand either through itself, or through that which is conceived through itself; that is, ideas which are clear and distinct in us, or which are referred to the third kind of knowledge (II. xl. note ii.) cannot follow from ideas that are fragmentary and confused, and are referred to knowledge of the first kind, but must follow from adequate ideas, or ideas of the second and third kind of knowledge; therefore (Def. of the Emotions, i.), the desire of knowing things by the third kind of knowledge cannot arise from the first, but from the second kind. *Q. E. D.*

PROP. XXIX. *Whatsoever the mind understands under the form of eternity, it does not understand by virtue of conceiving the present actual existence of the body, but by virtue of conceiving the essence of the body under the form of eternity.*

Proof. — In so far as the mind conceives the present existence of its body, it to that extent conceives duration which can be determined by time, and to that extent only has it the power

of conceiving things in relation to time (V. xxi. II. xxvi.). But eternity cannot be explained in terms of duration (I. Def. viii. and explanation). Therefore to this extent the mind has not the power of conceiving things under the form of eternity, but it possesses such power, because it is of the nature of reason to conceive things under the form of eternity (II. xliv. Coroll. ii.), and also because it is of the nature of the mind to conceive the essence of the body under the form of eternity (V. xxiii.), for besides these two there is nothing which belongs to the essence of mind (II. xiii.). Therefore this power of conceiving things under the form of eternity only belongs to the mind in virtue of the mind's conceiving the essence of the body under the form of eternity. *Q. E. D.*

Note. — Things are conceived by us as actual in two ways; either as existing in relation to a given time and place, or as contained in God and following from the necessity of the divine nature. Whatsoever we conceive in this second way as true or real, we conceive under the form of eternity, and their ideas involve the eternal and infinite essence of God, as we showed in II. xlv. and note, which see.

PROP. XXX. *Our mind, in so far as it knows itself and the body under the form of eternity, has to that extent necessarily a knowledge of God, and knows that it is in God, and is conceived through God.*

Proof. — Eternity is the very essence of God, in so far as this involves necessary existence (I. Def. viii.). Therefore to conceive things under the form of eternity, is to conceive things in so far as they are conceived through the essence of God as real entities, or in so far as they involve existence through the essence of God; wherefore our mind, in so far as it conceives itself and the body under the form of eternity, has to that extent necessarily a knowledge of God, and knows, &c. *Q. E. D.*

PROP. XXXI. *The third kind of knowledge depends on the mind, as its formal cause, in so far as the mind itself is eternal.*

Proof. — The mind does not conceive anything under the form of eternity, except in so far as it conceives its own body under the form of eternity (V. xxix.); that is, except in so far as it is

eternal (V. xxi. xxiii.); therefore (by the last Prop.), in so far as it is eternal, it possesses the knowledge of God, which knowledge is necessarily adequate (II. xlvi.); hence the mind, in so far as it is eternal, is capable of knowing everything which can follow from this given knowledge of God (II. xl.), in other words, of knowing things by the third kind of knowledge (see Def. in II. xl. note ii.), whereof accordingly the mind (III. Def. i.), in so far as it is eternal, is the adequate or formal cause of such knowledge. *Q. E. D.*

Note. — In proportion, therefore, as a man is more potent in this kind of knowledge, he will be more completely conscious of himself and of God; in other words, he will be more perfect and blessed, as will appear more clearly in the sequel. . . .

PROP. XXXII. *Whatsoever we understand by the third kind of knowledge, we take delight in, and our delight is accompanied by the idea of God as cause.*

Proof. — From this kind of knowledge arises the highest possible mental acquiescence, that is (Def. of the Emotions, xxv.), pleasure, and this acquiescence is accompanied by the idea of the mind itself (V. xxvii.), and consequently (V. xxx.) the idea also of God as cause. *Q. E. D.*

Corollary. — From the third kind of knowledge necessarily arises the intellectual love of God. From this kind of knowledge arises pleasure accompanied by the idea of God as cause, that is (Def. of the Emotions, vi.), the love of God; not in so far as we imagine him as present (V. xxix.), but in so far as we understand him to be eternal; this is what I call the intellectual love of God.

PROP. XXXIII. *The intellectual love of God, which arises from the third kind of knowledge, is eternal.*

Proof. — The third kind of knowledge is eternal (V. xxxi. I. Ax. iii.); therefore (by the same Axiom) the love which arises therefrom is also necessarily eternal. *Q. E. D.*

Note. — Although this love towards God has (by the foregoing Prop.) no beginning, it yet possesses all the perfections of love, just as though it had arisen as we feigned in the Coroll. of the last Prop. Nor is there here any difference, except that the mind possesses as eternal those same perfections which we feigned to

accrue to it, and they are accompanied by the idea of God as eternal cause. If pleasure consists in the transition to a greater perfection, assuredly blessedness must consist in the mind being endowed with perfection itself.

PROP. XXXIV. *The mind is, only while the body endures, subject to those emotions which are attributable to passions.*

Proof. — Imagination is the idea wherewith the mind contemplates a thing as present (II. xvii. note); yet this idea indicates rather the present disposition of the human body than the nature of the external thing (II. xvi. Coroll. ii.). Therefore emotion (see general Def. of Emotions) is imagination, in so far as it indicates the present disposition of the body; therefore (V. xxi.) the mind is, only while the body endures, subject to emotions which are attributable to passions. *Q. E. D.*

Corollary. — Hence it follows that no love save intellectual love is eternal.

Note. — If we look to men's general opinion, we shall see that they are indeed conscious of the eternity of their mind, but that they confuse eternity with duration, and ascribe it to the imagination of the memory which they believe to remain after death.

PROP. XXXV. *God loves himself with an infinite intellectual love.*

Proof. — God is absolutely infinite (I. Def. vi.), that is (II. Def. vi.), the nature of God rejoices in infinite perfection; and such rejoicing is (II. iii.) accompanied by the idea of himself, that is (I. xi. and Def. i.), the idea of his own cause: now this is what we have (in V. xxxii. Coroll.) described as intellectual love.

PROP. XXXVI. *The intellectual love of the mind towards God is that very love of God whereby God loves himself, not in so far as he is infinite, but in so far as he can be explained through the essence of the human mind regarded under the form of eternity; in other words, the intellectual love of the mind towards God is part of the infinite love wherewith God loves himself.*

Proof. — This love of the mind must be referred to the activities of the mind (V. xxxii. Coroll. and III. iii.); it is itself, indeed, an activity whereby the mind regards itself accompanied by the idea of God as cause (V. xxxii. and Coroll.); that is (I. xxv.

Coroll. and II. xi. Coroll.), an activity whereby God, in so far as he can be explained through the human mind, regards himself accompanied by the idea of himself; therefore (by the last Prop.), this love of the mind is part of the infinite love wherewith God loves himself. *Q. E. D.*

Corollary.—Hence it follows that God, in so far as he loves himself, loves man, and, consequently, that the love of God towards men, and the intellectual love of the mind towards God are identical.

Prop. XXXVII. *There is nothing in nature, which is contrary to this intellectual love, or which can take it away.*

Proof.—This intellectual love follows necessarily from the nature of the mind, in so far as the latter is regarded through the nature of God as an eternal truth (V. xxxiii. and xxix.). If, therefore, there should be anything which would be contrary to this love, that thing would be contrary to that which is true; consequently, that, which should be able to take away this love, would cause that which is true to be false; an obvious absurdity. Therefore there is nothing in nature which &c. *Q. E. D.*

Note.—The Axiom of Part IV. has reference to particular things, in so far as they are regarded in relation to a given time and place: of this, I think, no one can doubt.

Prop. XXXVIII. *In proportion as the mind understands more things by the second and third kind of knowledge, it is less subject to those emotions which are evil, and stands in less fear of death.*

Proof.—The mind's essence consists in knowledge (II. xi.); therefore, in proportion as the mind understands more things by the second and third kinds of knowledge, the greater will be the part of it that endures (V. xxix. and xxiii.), and, consequently (by the last Prop.), the greater will be the part that is not touched by the emotions, which are contrary to our nature, or in other words, evil (IV. xxx.). Thus, in proportion as the mind understands more things by the second and third kinds of knowledge, the greater will be the part of it that remains unimpaired, and, consequently, less subject to emotions, &c. *Q. E. D.*

Note.—Hence we understand that point which I touched

on in IV. xxxix. note, and which I promised to explain in this Part; namely, that death becomes less hurtful, in proportion as the mind's clear and distinct knowledge is greater, and, consequently, in proportion as the mind loves God more. Again, since from the third kind of knowledge arises the highest possible acquiescence (V. xxvii.), it follows that the human mind can attain to being of such a nature, that the part thereof which we have shown to perish with the body (V. xxi.) should be of little importance when compared with the part which endures. But I will soon treat of the subject at greater length.

PROP. XXXIX. *He, who possesses a body capable of the greatest number of activities, possesses a mind whereof the greatest part is eternal.*

Proof. — He, who possesses a body capable of the greatest number of activities, is least agitated by those emotions which are evil (IV. xxxviii.) — that is (IV. xxx.), by those emotions which are contrary to our nature; therefore (V. x.), he possesses the power of arranging and associating the modifications of the body according to the intellectual order, and, consequently, of bringing it about, that all the modifications of the body should be referred to the idea of God; whence it will come to pass that (V. xv.) he will be affected with love towards God, which (V. xvi.) must occupy or constitute the chief part of the mind; therefore (V. xxxiii.), such a man will possess a mind whereof the chief part is eternal. *Q. E. D.*

Note. — Since human bodies are capable of the greatest number of activities, there is no doubt but that they may be of such a nature, that they may be referred to minds possessing a great knowledge of themselves and of God, and whereof the greatest or chief part is eternal, and, therefore, that they should scarcely fear death. But, in order that this may be understood more clearly, we must here call to mind, that we live in a state of perpetual variation, and, according as we are changed for the better or the worse, we are called happy or unhappy.

PROP. XL. *In proportion as each thing possesses more of perfection, so is it more active and less passive; and, vice versa, in proportion as it is more active, so is it more perfect.*

Proof. — In proportion as each thing is more perfect, it possesses more of reality (II. Def. vi.), and, consequently (III. iii. and note), it is to that extent more active and less passive. This demonstration may be reversed, and thus prove that, in proportion as a thing is more active, so is it more perfect. *Q. E. D.*

Corollary. — Hence it follows that the part of the mind which endures, be it great or small, is more perfect than the rest. For the eternal part of the mind (V. xxiii. xxix.) is the understanding, through which alone we are said to act (III. iii.); the part which we have shown to perish is the imagination (V. xxi.), through which only we are said to be passive (III. iii. and general Def. of the Emotions); therefore, the former, be it great or small, is more perfect than the latter. *Q. E. D.*

Note. — Such are the doctrines which I had purposed to set forth concerning the mind, in so far as it is regarded without relation to the body; whence, as also from I. xxi. and other places, it is plain that our mind, in so far as it understands, is an eternal mode of thinking, which is determined by another eternal mode of thinking, and this other by a third, and so on to infinity; so that all taken together at once constitute the eternal and infinite intellect of God.

Prop. XLI. *Even if we did not know that our mind is eternal, we should still consider as of primary importance piety and religion, and generally all things which, in Part IV., we showed to be attributable to courage and high-mindedness.*

Proof. — The first and only foundation of virtue, or the rule of right living is (IV. xxii. Coroll. and xxiv.) seeking one's own true interest. Now, while we determined what reason prescribes as useful, we took no account of the mind's eternity, which has only become known to us in this Fifth Part. Although we were ignorant at that time that the mind is eternal, we nevertheless stated that the qualities attributable to courage and high-mindedness are of primary importance. Therefore, even if we were still ignorant of this doctrine, we should yet put the aforesaid precepts of reason in the first place. *Q. E. D.*

Note. — The general belief of the multitude seems to be dif-

ferent. Most people seem to believe that they are free, in so far as they may obey their lusts, and that they cede their rights, in so far as they are bound to live according to the commandments of the divine law. They therefore believe that piety, religion, and, generally, all things attributable to firmness of mind, are burdens, which, after death, they hope to lay aside, and to receive the reward for their bondage, that is, for their piety and religion; it is not only by this hope, but also, and chiefly, by the fear of being horribly punished after death, that they are induced to live according to the divine commandments, so far as their feeble and infirm spirit will carry them.

If men had not this hope and this fear, but believed that the mind perishes with the body, and that no hope of prolonged life remains for the wretches who are broken down with the burden of piety, they would return to their own inclinations, controlling everything in accordance with their lusts, and desiring to obey fortune rather than themselves. Such a course appears to me not less absurd than if a man, because he does not believe that he can by wholesome food sustain his body for ever, should wish to cram himself with poisons and deadly fare; or if, because he sees that the mind is not eternal or immortal, he should prefer to be out of his mind altogether, and to live without the use of reason; these ideas are so absurd as to be scarcely worth refuting.

PROP. XLII. *Blessedness is not the reward of virtue, but virtue itself; neither do we rejoice therein, because we control our lusts, but, contrariwise, because we rejoice therein, we are able to control our lusts.*

Proof. — Blessedness consists in love towards God (V. xxxvi. and note), which love springs from the third kind of knowledge (V. xxxii. Coroll.); therefore this love (III. iii. lix.) must be referred to the mind, in so far as the latter is active; therefore (IV. Def. viii.) it is virtue itself. This was our first point. Again, in proportion as the mind rejoices more in this divine love or blessedness, so does it the more understand (V. xxxii.); that is (V. iii. Coroll.) so much the more power has it over the emotions, and (V. xxxviii.) so much the less is it subject to those emotions which are evil; therefore, in proportion as the mind rejoices in this

divine love or blessedness, so has it the power of controlling lusts. And, since human power in controlling the emotions consists solely in the understanding, it follows that no one rejoices in blessedness, because he has controlled his lusts, but, contrariwise, his power of controlling his lusts arises from this blessedness itself. *Q. E. D.*

Note. — I have thus completed all I wished to set forth touching the mind's power over the emotions and the mind's freedom. Whence it appears, how potent is the wise man, and how much he surpasses the ignorant man, who is driven only by his lusts. For the ignorant man is not only distracted in various ways by external causes without ever gaining the true acquiescence of his spirit, but moreover lives, as it were unwitting of himself, and of God, and of things, and as soon as he ceases to suffer, ceases also to be.

Whereas the wise man, in so far as he is regarded as such, is scarcely at all disturbed in spirit, but, being conscious of himself, and of God, and of things, by a certain eternal necessity, never ceases to be, but always possesses true acquiescence of his spirit.

If the way which I have pointed out as leading to this result seems exceedingly hard, it may nevertheless be discovered. Needs must it be hard, since it is so seldom found. How would it be possible, if salvation were ready to our hand, and could without great labour be found, that it should be by almost all men neglected? But all things excellent are as difficult as they are rare.

GOTTFRIED WILHELM VON LEIBNITZ

(1646–1716)

THE MONADOLOGY

Translated from the French by*

FREDERIC HENRY HEDGE

1. THE Monad, of which we shall here speak, is merely a simple substance entering into those which are compound; simple, that is to say, without parts.

2. And there must be simple substances, since there are compounds; for the compound is only a collection or aggregation of simple things.

3. Where there are no parts, neither extension nor figure, nor divisibility is possible; and these Monads are the veritable atoms of nature and, in a word, the elements of things.

4. There is thus no danger of dissolution, and there is no conceivable way in which a simple substance can perish naturally.

5. For the same reason, there is no way in which a simple substance can begin naturally, since it could not be formed by composition.

6. Therefore we may say that the Monads can neither begin nor end in any other way than all at once; that is to say, they cannot begin except by creation, nor end except by annihilation; whereas that which is compounded, begins and ends by parts.

7. There is also no intelligible way in which a Monad can be altered or changed in its interior by any other created thing; since it would be impossible to transpose anything in it, or conceive in it any internal movement which could be excited, directed, augmented or diminished within, such as may take place

* *La Monadologie*, 1714; in *Opera Philosophica*, edited by J. E. Erdmann, Berlin, 1840. The English translation is here reprinted, with occasional minor changes, from *The Journal of Speculative Philosophy*, edited by William T. Harris, i, 1867, pp. 129–137; *id.*, F. H. Hedge's *Atheism in Philosophy, and other Essays*, Boston, Roberts Brothers, 1884, pp. 245–273.

in compound bodies, where there is change of parts. The Monads have no windows through which anything can enter or go forth. It would be impossible for any accidents to detach themselves and go forth from the substances, as did formerly the "sensible species" of the Schoolmen. Accordingly, neither substance nor accident can enter a Monad from without.

8. Nevertheless Monads must have qualities, otherwise they would not even be entities. And if simple substances did not differ in their qualities, there would be no means by which we could become aware of the changes of things, since all that is in compound bodies is derived from simple ingredients, and Monads, if they were without qualities, would be indistinguishable one from another, since they do not differ in quantity. Consequently, a *plenum* being supposed, each part of space could in any movement receive only the just equivalent of what it had had before, and one state of things would be indistinguishable from another.

9. Moreover, each Monad must differ from every other, for there are never two beings in nature perfectly alike, and in which it is impossible to find an internal difference, or one founded on some intrinsic denomination.

10. I assume, furthermore, that every created being, and consequently the created Monad, is subject to change; and likewise that this change is continual in each.

11. It follows, from what we have now said, that the natural changes of Monads proceed from an internal principle, since no external cause can influence their interior.

12. But, besides the principle of change, there must also be a detail of that which changes [*un détail de ce qui change*], which constitutes, so to speak, the specific nature and the variety of the simple substances.

13. This detail must involve multiplicity in the unit [*unité*] or in that which is simple. For, as all natural changes proceed by degrees, something changes and something remains unchanged, and consequently there must be in the simple substance a plurality of affections and relations, although there are no parts.

14. This shifting state, which involves and represents multiplicity in the unit, or in the simple substance, is nothing but what

we call Perception, which must be carefully distinguished from *apperception*, or consciousness, as will appear in the sequel. Here it is that the Cartesians have especially failed, making no account of those perceptions of which we are not conscious. It is this that has led them to suppose that spirits are the only Monads, and that there are no souls of brutes or other entelechies. It is owing to this that they have vulgarly confounded protracted torpor with actual death, and have fallen in with the scholastic prejudice, which believes in souls entirely separate [from bodies]. For this reason, also, ill-affected minds have been confirmed in the opinion that the soul is mortal.

15. The action of the internal principle which causes the change, or the passage from one perception to another, may be called Appetition. It is true, the desire cannot always completely attain to every perception to which it tends, but it always attains to something thereof, and arrives at new perceptions.

16. We experience in ourselves the fact of a multiplicity in the simple substance, when we find that the least thought of which we are conscious includes a variety in its object. Accordingly, all who admit that the soul is a simple substance, are bound to admit this multiplicity in the Monad, and M. Bayle should not have found any difficulty in this admission, as he has done in his Dictionary, article "Rorarius."

17. Besides, it must be confessed that Perception and its consequences are inexplicable by mechanical causes, that is to say, by figures and motions. If we imagine a machine so constructed as to produce thought, sensation and perception, we may conceive it as magnified — the same proportions being preserved — to such an extent that one might enter it like a mill. This being supposed, we should find in it on inspection only pieces which impel each other, but nothing which can explain a perception. It is in the simple substance, therefore, and not in a compound, or in a machine, that we must look for the phenomenon of perception. And in the simple substance we find nothing else — nothing, that is, but perceptions and their changes. Therein also, and therein only, consist all the internal actions of simple substances.

18. We might give the name of entelechies to all simple substances or created Monads, inasmuch as there is in them a certain completeness (perfection), (ἔχουσι τὸ ἐντελές). There is a certain sufficiency (αὐτάρκεια) which makes them the sources of their own internal actions, and, as it were, incorporeal automata.

19. If we choose to give the name of soul to everything that has perceptions and desires [*appétits*], in the general sense which I have just explained, then all simple substances or created Monads may be called souls. But as feeling [*le sentiment*] is something more than simple perception, I am willing that the general name of Monads or entelechies shall suffice for those simple substances which have perception only, and that the term souls shall be confined to those in which perceptions are more distinct, and accompanied by memory.

20. For we experience in ourselves a state in which we remember nothing, and have no distinct perception; as when we are in a swoon or in a profound or dreamless sleep. In this state the soul does not differ perceptibly from a simple Monad; but since this state is not permanent, and since the soul delivers itself from it, the soul is something more than a bare Monad.

21. And it does not by any means follow, in that case, that the simple substance is without perception. That, indeed, is impossible, for the reasons given above; for it cannot perish, neither can it subsist without affection of some kind, which is nothing else than its perception. But where there is a great number of minute perceptions, and where nothing is distinct, one is stunned; as when we turn round and round in continual succession in the same direction, whence arises a vertigo, which may cause us to faint, and which prevents us from distinguishing anything. And possibly death may produce this state for a time in animals.

22. And as every present condition of a simple substance is a natural consequence of its antecedent condition, so its present is big with its future.

23. Then, as on waking from a state of stupor, we become conscious of our perceptions, we must have perceptions, although unconscious of them, immediately before awaking. For each

perception can have no other natural origin but an antecedent perception, as every motion must be derived from one which preceded it.

24. Thus it appears that if there were no distinction — no relief, so to speak — no enhanced flavor in our perceptions, we should continue forever in a state of stupor; and this is the condition of the naked Monad.

25. And so we see that nature has given to animals enhanced perceptions, by the care which she has taken to furnish them with organs which collect many rays of light and many undulations of air, increasing their efficacy by their union. There is something approaching to this in odor, in taste, in touch, and perhaps in a multitude of other senses of which we have no knowledge. I shall presently explain how that which passes in the soul represents that which takes place in the organs.

26. Memory gives to the soul a kind of *consecutiveness** which resembles [*imite*] reason, but must be distinguished from it. We observe that animals, having a perception of something which strikes them, and of which they have previously had a similar perception, expect, through the representation of their memory, the recurrence of that which was associated with it in their previous perception, and incline to the same feelings which they then had. For example, when we show dogs the cane, they remember the pain which it caused them, and whine and run.

27. And the lively imagination, which affects and excites them, arises either from the magnitude or the number of their previous perceptions. For often a powerful impression produces suddenly the effect of long habit, or of moderate perceptions often repeated.

28. In men as in brutes, the consecutiveness of their perceptions is due to the principle of memory — like empirical physicians, who practice without theory. Indeed we are mere empirics in three-fourths of our acts. For example, when we expect that the sun will rise to-morrow, we judge so empirically, because it has always risen hitherto. It is only the astronomer who judges by an act of reason.

29. But the knowledge of necessary and eternal truths is what

* The term is equivalent to association of ideas.

distinguishes us from mere animals. It is this which gives us Reason and the Sciences, and raises us to the knowledge of ourselves and of God; and it is this in us which we call a reasonable soul or spirit [*esprit*].

30. It is also by the knowledge of necessary truths, and by their abstractions, that we rise to acts of reflection, which give us the idea of that which calls itself "I," and which lead us to consider that this or that is within us. And thus, while thinking of ourselves, we think of being, of substance, simple or compound, of the immaterial, and of God himself. We conceive that that which in us is limited, is in him without limit. And these reflective acts furnish the principal objects of our reasonings.

31. Our reasonings are founded on two great principles, that of *contradiction*, by virtue of which we judge that to be *false* which involves contradiction, and that to be *true* which is opposed to, or which contradicts the false,

32. And that of *sufficient reason*, by virtue of which we judge that no fact can be real or existent, no statement true, unless there be a sufficient reason why it is thus, and not otherwise, although these reasons very often cannot be known to us.

33. There are also two kinds of *truths*, — those of *reasoning* and those of *fact*. Truths of reasoning are necessary, and their opposite is impossible; those of fact are contingent, and their opposite is possible. When a truth is necessary, we may discover the reason of it by analysis, resolving it into simpler ideas and truths, until we arrive at those which are primitive [*primitifs*].

34. It is thus that mathematicians by analysis reduce speculative *theorems* and practical *canons* to *definitions*, *axioms*, and *postulates*.

35. And finally, there are simple ideas of which no definition can be given; there are also axioms and postulates, in a word, *ultimate principles*, which cannot and need not be proved. And these are *identical propositions*, the opposite of which contains an express contradiction.

36. But there must also be a sufficient reason for contingent truths, or truths of fact, that is, for the series of things diffused through the universe of created objects, or else the process of

resolving into particular reasons might run into a detail without bounds, on account of the immense variety of things in nature, and the infinite division of bodies. There is an infinity of figures and of movements, present and past, which enter into the efficient cause of my present writing; and there is an infinity of minute inclinations and dispositions of my soul, present and past, which enter into the final cause of it.

37. And as all this *detail* only involves other anterior or more detailed contingencies, each one of which again requires a similar analysis in order to account for it, we have made no advance; and the sufficient or final reason must be outside of the series of this detail of contingencies [*i. e.* accidental causes], however infinite this series may be.

38. And thus the final reason of things must be found in a necessary substance, in which the detail of changes exists only eminently, as in their source. And this substance we call God.

39. Now this substance being a sufficient reason of all this detail, which also is everywhere linked together, *there is only one God, and this God suffices.*

40. We may also conclude that this supreme substance, which is unique, universal, and necessary — having nothing outside of it which is independent of it — and which is a simple sequence of possible being, must be incapable of limits, and must contain as much of reality as is possible.

41. Whence it follows that God is perfect, perfection being nothing but the magnitude of positive reality taken exactly, setting aside the limits or bounds in that which is limited. And where there are no bounds, that is to say, in God, perfection is absolutely infinite.

42. It follows also that the creatures have their perfections from the influence of God, but they have their imperfections from their own nature, which is incapable of existing without limits. For it is by this that they are distinguished from God.

43. It is true, moreover, that God is not only the source of existences, but also of essences, so far as real, or of that which is real in the possible. For the divine understanding is the region of eternal truths, or of the ideas on which they depend, and

without Him there would be nothing real in the possibilities of things, and not only nothing existing, but also nothing possible.

44. At the same time, if there be a reality in the essences or possibilities, or in the eternal truths, this reality must be founded in something existing and actual, consequently in the existence of the necessary Being, in whom essence includes existence, or with whom it is sufficient to be possible in order to be actual.

45. Thus God alone (or the necessary Being) possesses this privilege, that He must exist, if He is possible; and since nothing can hinder the possibility of that which includes no limits, no negation, and consequently no contradiction, that alone is sufficient to establish the existence of God *a priori*. We have likewise proved it by the reality of eternal truths. But we have also just proved it *a posteriori* by showing that, since contingent beings exist, they can have their ultimate and sufficient reason only in some necessary Being, who contains the reason of his existence in himself.

46. Nevertheless, we must not suppose, as some do, that eternal verities, being dependent upon God, are arbitrary, and depend upon his will, as Descartes, and afterwards M. Poiret, appear to have held. This is true only of contingent truths, the principle of which is fitness, or the choice of the best; whereas necessary truths depend solely on His understanding, and are its inner object.

47. Thus God alone is the primitive unity, or the original simple substance of which all the created or derived Monads are the products; and they are generated so to speak, by continual fulgurations of the Divinity, from moment to moment, bounded by the receptivity of the creature, of whose existence limitation is an essential condition.

48. In God is *Power*, which is the source of all; also *knowledge*, which contains the detail of ideas; and, finally, *Will*, which generates changes or products according to the principle of optimism. And this corresponds to what, in created Monads, constitutes the subject or the basis, the perceptive and the appetitive faculty. But in God these attributes are absolutely infinite or perfect; and in the created Monads, or in the entelechies (or *perfectihabiae*,

as Hermolaus Barbarus translates this word), they are only imitations according to the measure of their perfection.

49. The creature is said to act externally, in so far as it possesses perfection, and to suffer from another [creature] in so far as it is imperfect. Thus we ascribe action to the Monad, in so far as it has distinct perceptions, and passivity [*passion*], in so far as its perceptions are confused.

50. And one creature is more perfect than another, in this, that we find in it that which serves to account *a priori* for what takes place in the other; and it is therefore said to act upon the other.

51. But in simple substances this is merely an ideal influence of one Monad upon another, and it can have its effect only by the intervention of God, inasmuch as in the ideas of God any Monad has a right to demand that God, in regulating the rest from the commencement of things, should have regard to it. For since a created Monad can have no physical influence on the interior of another, it is only by this means that one can be dependent on another.

52. And hence it is that actions and passions in creatures are mutual. For God, comparing two simple substances, finds reasons in each which oblige Him to adapt the one to the other. Consequently that which is active in one view, is passive in another; active in so far as what we clearly discern in it serves to account for that which takes place in another, and passive in so far as the reason of that which passes in it is found in that which is clearly discerned in another.

53. Now, as in the ideas of God there is an infinity of possible worlds, and as only one can exist, there must be a sufficient reason for the choice of God, which determines Him to decide upon one rather than another.

54. And this reason can be no other than *fitness*, derived from the different degrees of perfection which these worlds contain, since each possible world has a claim to exist according to the measure of perfection which it enfolds.

55. And this is the cause of the existence of that Best, which the wisdom of God discerns, his goodness chooses, and his power effects.

56. And this connection, or this adaptation of all created things to each, and of each to all, implies in each simple substance relations which express all the rest. Each, accordingly, is a living and perpetual mirror of the universe.

57. And as the same city viewed from different sides appears quite different, and is perspectively multiplied, so, in the infinite number of simple substances, there are given, as it were, so many different worlds, which, nevertheless, are only the perspectives of a single one, according to the different points of view of each Monad.

58. And this is the way to obtain the greatest possible variety, along with the greatest possible order; that is to say, it is the way to obtain the greatest possible perfection.

59. Thus this hypothesis (which I may venture to pronounce demonstrated) is the only one which properly exhibits the greatness of God. And this M. Bayle acknowledges, when in his Dictionary (article Rorarius) he objects to it. He is even disposed to think that I attribute too much to God, and that I ascribe to him impossibilities. But he can allege no reason for the impossibility of this universal harmony, by which each substance expresses exactly the perfections of all the rest through its relations with them.

60. We see, moreover, in what I have just stated, the *a priori* reasons why things could not be other than they are. For God, in ordering the whole, has respect to each part, and specifically to each Monad, whose nature being to represent, is by nothing restrained from representing the whole of things; although, it is true, that this representation must needs be confused, as it regards the detail [*le détail*] of the whole universe, and can be distinct only in relation to a small part of things, that is, in relation to those which are nearest, or whose relations to any given Monad are greatest. Otherwise each Monad would be a divinity. The Monads are limited, not in the object, but in the mode of their knowledge of the object. They all tend confusedly toward the infinite, toward the whole; but they are limited and distinguished by the degrees of distinctness in their perceptions.

61. And compounds symbolize in this respect with simple

substances. For since the world is a *plenum*, and all matter connected, and as in a *plenum* every movement has some effect on distant bodies, in proportion to their distance, so that each body is affected not only by those in actual contact with it, and feels in some way all that happens to them, but also through their means is affected by others in contact with those by which it is immediately touched — it follows that this intercommunication extends to any distance however great. Consequently, each body feels all that passes in the universe, so that he who sees all, may read in each that which passes everywhere else, and even that which has been and shall be, discerning in the present that which is removed in time as well as in space: σύμπνοια πάντα, said Hippocrates. But each soul can read in itself only that which is distinctly represented in it. It cannot unfold its laws at once, for they reach into the infinite.

62. Thus, though every created Monad represents the entire universe, it represents more distinctly the particular body to which it belongs, and whose entelechy it is; and as this body expresses the entire universe, through the connection of all matter in a *plenum*, the soul represents also the entire universe in representing that body which especially belongs to it.

63. The body belonging to a Monad, which is its entelechy or soul, constitutes, with its entelechy, what may be termed a *living being*, and, with its soul, what may be called an *animal*. Now this body of a living being, or of an animal, is always organic; for every Monad, being a mirror of the universe, according to its fashion, and the universe being arranged with perfect order, there must be the same order in the representative, that is, in the perceptions of the soul, and consequently in the body, according to which the universe is represented in it.

64. Thus each organic living body is a kind of divine machine, or a natural automaton, infinitely surpassing all artificial automata. A machine made by human art is not a machine in all its parts. For example, the tooth of a brass wheel has parts or fragments which are not artificial to us, and which have nothing to mark the machine in relation to the use for which the wheel is designed. But nature's machines, that is, living bodies, are still

machines in their minutest parts, *ad infinitum*. This constitutes the difference between nature and art, that is to say, between the divine art and ours.

65. And the author of nature has been able to exercise this divine and infinitely wonderful art, inasmuch as every portion of nature is not only infinitely divisible, as the ancients knew, but is actually subdivided without end, each part into parts, of which each has its own movement. Otherwise, it would be impossible that each portion of matter should express the universe.

66. Whence it appears that there is a world of creatures, of living beings, of animals, of entelechies, of souls, in the minutest portion of matter.

67. Every particle of matter may be conceived as a garden of plants, or as a pond full of fishes. But each branch of each plant, each member of each animal, each drop of their humors, is in turn another such garden or pond.

68. And although the earth and the air embraced between the plants in the garden, or the water between the fishes of the pond, are not themselves plant or fish, they nevertheless contain such, but mostly too minute for our perception.

69. Thus there is no uncultivated spot, no barrenness, no death in the universe, no chaos, no confusion, except in appearance, somewhat as it might appear in a pond at a distance, in which one would see a confused movement and swarming, so to speak, of the fishes of the pond, without separately distinguishing the fishes themselves.

70. We see, then, that each living body has a governing entelechy, which in animals is the soul of the animal. But the members of this living body are full of other living beings — plants, animals — each of which has its entelechy, or regent soul.

71. We must not, however, suppose, as some who misapprehend my thought have done, that each soul has a mass or portion of matter proper to itself, or forever united to it, and that it consequently possesses other inferior living beings, destined forever to its service. For all bodies are in a perpetual flux, like rivers. Their particles are continually coming and going.

72. Thus the soul does not change its body except by degrees.

It is never deprived all at once of all its organs. There are often metamorphoses in animals, but never metempsychosis, nor transmigration of souls. Neither are there souls entirely separated [from bodies], nor genii without bodies. God alone is wholly without body.

73. For which reason, also, there is never complete generation nor complete death — strictly considered — consisting in the separation of the soul from the body. That which we call generation, is development and accretion; and that which we call death, is envelopment and diminution.

74. Philosophers have been much troubled about the origin of forms, of entelechies, or souls. But at the present day, when, by accurate investigations of plants, insects and animals, they have become aware that the organic bodies of nature are never produced from chaos or from putrefaction, but always from a seed, in which undoubtedly, there had been some *preformation*, it has been inferred that not only the organic body existed in that seed before conception, but also a soul in that body, in one word, the animal itself; and that, by the act of conception, this animal is merely disposed to a greater transformation, in order to become an animal of another species. We even see something approaching this, outside of generation, as when worms become flies, or when caterpillars become butterflies.

75. Those animals, of which some are advanced to a higher grade, by means of conception, may be called *spermatic;* but those among them which remain in their kind, that is to say, the greater portion, are born, multiply, and are destroyed, like the larger animals, and only a small number of the elect among them pass to a greater theatre.

76. But this is only half the truth. I have concluded that if the animal does not begin to be in the order of nature, it also does not cease to be in the order of nature; and that not only there is no generation, but no entire destruction, or death, strictly speaking. And these *a posteriori* conclusions, drawn from experience, accord perfectly with my principles deduced *a priori,* as stated above.

77. Thus we may say, not only that the soul (mirror of an indestructible universe) is indestructible, but also the animal itself,

although its machine may often perish in part, and put off or put on organic spoils.

78. These principles have furnished me with a natural explanation of the union, or rather the conformity between the soul and the organized body. The soul follows its proper laws, and the body likewise follows those which are proper to it, and they meet in virtue of the preëstablished harmony which exists between all substances, as representations of one and the same universe.

79. Souls act according to the laws of final causes, by appetitions, means and ends; bodies act according to the laws of efficient causes, or the laws of motion. And the two kingdoms, that of efficient causes and that of final causes, are in harmony with one another.

80. Descartes recognized that souls communicate no force to bodies, because the quantity of force in matter is always the same. Nevertheless, he believed that souls might change the direction of bodies. But this was because the world was at that time ignorant of the law of nature, which requires the conservation of the same total direction in matter. Had he known this, he would have hit upon my system of preëstablished harmony.

81. According to this system, bodies act as if there were no souls, and souls act as if there were no bodies; and yet both act as though the one influenced the other.

82. As to spirits, or rational souls, although I find that at bottom the same principle which I have stated — namely, that animals and souls begin with the world and end only with the world — holds true with regard to all animals and living things, yet there is this peculiarity in rational animals, that although their spermatic animalcules, as such, have only ordinary or sensitive souls, yet as soon as those of them which are, so to speak, elected, arrive by the act of conception at human nature, their sensitive souls are elevated to the rank of reason and to the prerogative of spirits.

83. Among other differences which exist between spirits and ordinary souls, some of which have already been indicated, there is also this: that souls in general are living mirrors, or images of the universe of creatures, but spirits are, furthermore,

images of Divinity itself, or of the Author of Nature, capable of knowing the system of the universe, and of imitating something of it by architectonic ensamples [*échantillons*], each spirit being, as it were, a little divinity in its own department.

84. Hence spirits [*esprits*] are able to enter into a kind of fellowship with God. In their view he is not merely what an inventor is to his machine (which is the relation of God to other creatures), but also what a prince is to his subjects, and even what a father is to his children.

85. Whence it is easy to conclude that the assembly of all spirits must constitute the City of God, that is to say, the most perfect state that is possible, under the most perfect of monarchs.

86. This City of God, this truly universal monarchy, is a moral world within the natural; and it is the most exalted and the most divine among the works of God. It is in this that the glory of God most truly consists, for it would be wanting if his greatness and his goodness were not recognized and admired by spirits. It is in relation to this Divine City that he possesses, properly speaking, the attribute of goodness, whereas his wisdom and his power are everywhere manifest.

87. As we have established above a perfect harmony between the two natural kingdoms, — the one of efficient, the other of final causes, — it behooves us to notice here also still another harmony between the physical kingdom of nature and the moral kingdom of grace, that is to say, between God considered as the architect of the mechanism [*machine*] of the universe, and God considered as monarch of the divine City of Spirits.

88. This harmony makes all things conduce to grace by natural methods. This globe, for example, must be destroyed and repaired by natural means, at such seasons as the government of spirits may require, for the chastisement of some and recompense of others.

89. We may say, furthermore, that God as architect satisfies entirely God as legislator, and that accordingly, sins must carry their punishment with them in the order of nature, and by virtue even of the mechanical structure of things; and that good deeds in like manner will bring their recompense, through their con-

nection with bodies, although this cannot, and ought not always to happen immediately.

90. Finally, under this perfect government, there will be no good deed without its recompense, and no evil deed without its punishment, and all must redound to the advantage of the good, that is to say, of those who are not malcontents, in this great commonwealth, who confide in Providence after having done their duty, and who worthily love and imitate the Author of all good, pleasing themselves with the contemplation of His perfections, following the nature of genuine "pure love," which makes us blest in the happiness of the loved. In this spirit the wise and good labor for that which appears to be conformable to the divine will, presumptive or antecedent, contented the while with all that God brings to pass by his secret, consequent and decisive will, recognizing that if we were sufficiently acquainted with the order of the universe we should find that it surpasses all the wishes of the wisest, and that it could not be made better than it is, not only for all in general, but for ourselves in particular, if we are attached, as is fitting, to the Author of All, not only as the architect and efficient cause of our being, but also as our master and final cause, who ought to be the whole aim of our volition, and who alone can make us blest.

JOHN LOCKE
(1632–1704)

AN ESSAY CONCERNING HUMAN UNDERSTANDING*

BOOK I

CHAPTER I. INTRODUCTION†

1. *An inquiry into the understanding, pleasant and useful.*— Since it is the *understanding* that sets man above the rest of sensible beings, and gives him all the advantage and dominion which he has over them, it is certainly a subject, even for its nobleness, worth our labour to inquire into. The understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance, and make it its own object. But whatever be the difficulties that lie in the way of this inquiry, whatever it be that keeps us so much in the dark to ourselves, sure I am that all the light we can let in upon our own minds, all the acquaintance we can make

* London, 1690; 2d enl. ed. 1694; 3d ed. 1697; 4th enl. ed. 1700; ed. A. C. Fraser, 2 vols. Oxford, 1894. The body of the present text has been compared with that of Fraser's edition. Deviations from the first edition of the *Essay* found by him in the three other editions of Locke's lifetime are shown by brackets.

† The origin of the *Essay* is thus told by Locke in his introductory Epistle:— "Were it fit to trouble thee with the history of this Essay, I should tell thee, that five or six friends, meeting at my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand by the difficulties that rose on every side. After we had awhile puzzled ourselves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts, that we took a wrong course; and that, before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and see what objects our understandings were or were not fitted to deal with. This I proposed to the company, who all readily assented; and thereupon it was agreed, that this should be our first inquiry. Some hasty and undigested thoughts, on a subject I had never before considered, which I set down against our next meeting, gave the first entrance into this discourse, which, having been thus begun by chance, was continued by intreaty; written by incoherent parcels; and, after long intervals of neglect, resumed again, as my humour or occasions permitted; and at last, in a retirement, where an attendance on my health gave me leisure, it was brought into that order thou now seest it."

with our own understandings, will not only be very pleasant, but bring us great advantage in directing our thoughts in the search of other things.

2. *Design.* — This therefore being my purpose, to inquire into the original, certainty, and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent, I shall not at present meddle with the physical consideration of the mind, or trouble myself to examine wherein its essence consists or by what motions of our spirits, or alterations of our bodies, we come to have any *sensation* by our organs, or any *ideas* in our understandings; and whether those ideas do, in their formation, any or all of them, depend on matter or not: these are speculations which, however curious and entertaining, I shall decline, as lying out of my way in the design I am now upon. It shall suffice to my present purpose, to consider the discerning faculties of a man, as they are employed about the objects which they have to do with; and I shall imagine I have not wholly misemployed myself in the thoughts I shall have on this occasion, if, in this historical, plain method, I can give any account of the ways whereby our understandings come to attain those notions of things we have, and can set down any measures of the certainty of our knowledge, or the grounds of those persuasions which are to be found amongst men, so various, different, and wholly contradictory; and yet asserted somewhere or other with such assurance and confidence, that he that shall take a view of the opinions of mankind, observe their opposition, and at the same time consider the fondness and devotion wherewith they are embraced, the resolution and eagerness wherewith they are maintained, may perhaps have reason to suspect that either there is no such thing as truth at all, or that mankind hath no sufficient means to attain a certain knowledge of it.

3. *Method.* — It is therefore worth while to search out the bounds between opinion and knowledge, and examine by what measures, in things whereof we have no certain knowledge, we ought to regulate our assent, and moderate our persuasions. In order whereunto, I shall pursue this following method: —

First. I shall inquire into the original of those ideas, notions,

or whatever else you please to call them, which a man observes, and is conscious to himself he has in his mind ; and the ways whereby the understanding comes to be furnished with them.

Secondly. I shall endeavour to show what knowledge the understanding hath by those ideas, and the certainty, evidence, and extent of it.

Thirdly. I shall make some inquiry into the nature and grounds of faith or opinion; whereby I mean, that assent which we give to any proposition as true, of whose truth yet we have no certain knowledge: and here we shall have occasion to examine the reasons and degrees of assent.

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CHAPTER II. NO INNATE PRINCIPLES IN THE MIND

1. *The way shown how we come by any knowledge, sufficient to prove it not innate.* — It is an established opinion amongst some men, that there are in the understanding certain *innate principles;* some primary notions, κοιναὶ ἔννοιαι, characters, as it were, stamped upon the mind of man, which the soul receives in its very first being, and brings into the world with it. It would be sufficient to convince unprejudiced readers of the falseness of this supposition, if I should only show (as I hope I shall in the following parts of this discourse) how men, barely by the use of their natural faculties, may attain to all the knowledge they have, without the help of any innate impressions, and may arrive at certainty, without any such original notions or principles. For I imagine any one will easily grant that it would be impertinent to suppose the ideas of colours innate in a creature to whom God hath given sight, and a power to receive them by the eyes from external objects: and no less unreasonable would it be to attribute several truths to the impressions of nature and innate characters, when we may observe in ourselves faculties fit to attain as easy and certain knowledge of them, as if they were originally imprinted on the mind.

But because a man is not permitted without censure to follow

his own thoughts in the search of truth, when they lead him ever so little out of the common road, I shall set down the reasons that made me doubt of the truth of that opinion, as an excuse for my mistake, if I be in one; which I leave to be considered by those who, with me, dispose themselves to embrace truth wherever they find it.

2. *General assent the great argument.* — There is nothing more commonly taken for granted than that there are certain principles, both *speculative* and *practical* (for they speak of both), universally agreed upon by all mankind, which therefore, they argue, must needs be constant impressions, which the souls of men receive in their first beings, and which they bring into the world with them, as necessarily and really as they do any of their inherent faculties.

3. *Universal consent proves nothing innate.* — This argument, drawn from universal consent, has this misfortune in it, that if it were true in matter of fact, that there were certain truths wherein all mankind agreed, it would not prove them innate, if there can be any other way shown how men may come to that universal agreement in the things they do consent in, which I presume may be done.

4. *"What is, is," and "it is impossible for the same thing to be and not to be," not universally assented to.* — But, which is worse, this argument of universal consent, which is made use of to prove innate principles, seems to me a demonstration that there are none such; because there are none to which all mankind give an universal assent. I shall begin with the speculative, and instance in those magnified principles of demonstration, "whatsoever is, is," and "it is impossible for the same thing to be and not to be;" which, of all others, I think have the most allowed title to innate. These have so settled a reputation of maxims universally received, that it will no doubt be thought strange if any one should seem to question it. But yet I take liberty to say, that these propositions are so far from having an universal assent, that there are a great part of mankind to whom they are not so much as known.

5. *Not on the mind naturally imprinted, because not known*

to children, idiots, &c. — For, first, it is evident that all children and idiots have not the least apprehension or thought of them; and the want of that is enough to destroy that universal assent which must needs be the necessary concomitant of all innate truths: it seeming to me near a contradiction to say that there are truths imprinted on the soul which it perceives or understands not; imprinting, if it signify anything, being nothing else but the making certain truths to be perceived. For to imprint anything on the mind without the mind's perceiving it, seems to me hardly intelligible. If therefore children and idiots have souls, have minds, with those impressions upon them, they must unavoidably perceive them, and necessarily know and assent to these truths; which since they do not, it is evident that there are no such impressions. For if they are not notions naturally imprinted, how can they be innate? and if they are notions imprinted, how can they be unknown? To say a notion is imprinted on the mind, and yet at the same time to say that the mind is ignorant of it, and never yet took notice of it, is to make this impression nothing. No proposition can be said to be in the mind which it never yet knew, which it was never yet conscious of. For if any one may, then, by the same reason, all propositions that are true, and the mind is capable of ever assenting to, may be said to be in the mind, and to be imprinted: since, if any one can be said to be in the mind, which it never yet knew, it must be only because it is capable of knowing it, and so the mind is of all truths it ever shall know. Nay, thus truths may be imprinted on the mind which it never did nor ever shall know; for a man may live long, and die at last in ignorance of many truths which his mind was capable of knowing, and that with certainty. So that if the capacity of knowing be the natural impression contended for, all the truths a man ever comes to know will, by this account, be every one of them innate; and this great point will amount to no more, but only to a very improper way of speaking; which, whilst it pretends to assert the contrary, says nothing different from those who deny innate principles. For nobody, I think, ever denied that the mind was capable of knowing several truths. The capacity, they say, is innate,

the knowledge acquired. But then to what end such contest for certain innate maxims? If truths can be imprinted on the understanding without being perceived, I can see no difference there can be between any truths the mind is capable of knowing in respect of their original: they must all be innate or all adventitious; in vain shall a man go about to distinguish them. He therefore that talks of innate notions in the understanding, cannot (if he intend thereby any distinct sort of truths) mean such truths to be in the understanding as it never perceived, and is yet wholly ignorant of. For if these words (to be in the understanding) have any propriety, they signify to be understood; so that to be in the understanding and not to be understood, to be in the mind and never to be perceived, is all one as to say anything is and is not in the mind or understanding. If therefore these two propositions, "Whatsoever is, is," and "it is impossible for the same thing to be and not to be," are by nature imprinted, children cannot be ignorant of them; infants, and all that have souls, must necessarily have them in their understandings, know the truth of them, and assent to it.

6. *That men know them when they come to the use of reason, answered.* — To avoid this, it is usually answered, that all men know and assent to them, *when they come to the use of reason,* and this is enough to prove them innate. I answer:—

7. Doubtful expressions, that have scarce any signification, go for clear reasons to those who, being prepossessed, take not the pains to examine even what they themselves say. For, to apply this answer with any tolerable sense to our present purpose, it must signify one of these two things; either that as soon as men come to the use of reason these supposed native inscriptions come to be known and observed by them, or else that the use and exercise of men's reason assists them in the discovery of these principles, and certainly makes them known to them.

8. *If reason discovered them, that would not prove them innate.* — If they mean, that by the use of reason men may discover these principles, and that this is sufficient to prove them innate; their way of arguing will stand thus, viz., that whatever truths reason can certainly discover to us, and make us firmly

assent to, those are all naturally imprinted on the mind; since that universal assent, which is made the mark of them, amounts to no more but this, that by the use of reason we are capable to come to a certain knowledge of and assent to them; and, by this means, there will be no difference between the maxims of the mathematicians, and theorems they deduce from them: all must be equally allowed innate, they being all discoveries made by the use of reason, and truths that a rational creature may certainly come to know, if he apply his thoughts rightly that way.

9. *It is false that reason discovers them.* — But how can these men think the use of reason necessary to discover principles that are supposed innate, when reason (if we may believe them) is nothing else but the faculty of deducing unknown truths from principles or propositions that are already known? That certainly can never be thought innate which we have need of reason to discover; unless, as I have said, we will have all the certain truths that reason ever teaches us, to be innate. We may as well think the use of reason necessary to make our eyes discover visible objects, as that there should be need of reason, or the exercise thereof, to make the understanding see what is originally engraven on it, and cannot be in the understanding before it be perceived by it. So that to make reason discover those truths thus imprinted, is to say that the use of reason discovers to a man what he knew before: and if men have those innate impressed truths originally, and before the use of reason, and yet are always ignorant of them till they come to the use of reason, it is in effect to say, that men know and know them not at the same time.

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CHAPTER III. NO INNATE PRACTICAL PRINCIPLES

1. *No moral principles so clear and so generally received as the forementioned speculative maxims.* — If those speculative maxims, whereof we discoursed in the foregoing chapter, have not an actual universal assent from all mankind, as we there proved, it is much more visible concerning *practical* principles,

that they come short of an universal reception; and I think it will be hard to instance any one moral rule which can pretend to so general and ready an assent as, "What is, is;" or to be so manifest a truth as this, "That it is impossible for the same thing to be and not to be." Whereby it is evident that they are further removed from a title to be innate; and the doubt of their being native impressions on the mind is stronger against those moral principles than the other. Not that it brings their truth at all in question. They are equally true, though not equally evident. Those speculative maxims carry their own evidence with them; but moral principles require reasoning and discourse, and some exercise of the mind, to discover the certainty of their truth. They lie not open as natural characters engraven on the mind; which, if any such were, they must needs be visible by themselves, and by their own light be certain and known to everybody. But this is no derogation to their truth and certainty, no more than it is to the truth or certainty of the three angles of a triangle being equal to two right ones; because it is not so evident as "the whole is bigger than a part," nor so apt to be assented to at first hearing. It may suffice that these moral rules are capable of demonstration; and therefore it is our own fault if we come not to a certain knowledge of them. But the ignorance wherein many men are of them, and the slowness of assent wherewith others receive them, are manifest proofs that they are not innate, and such as offer themselves to their view without searching.

2. *Faith and justice not owned as principles by all men.* — Whether there be any such moral principles wherein all men do agree, I appeal to any who have been but moderately conversant in the history of mankind, and looked abroad beyond the smoke of their own chimneys. Where is that practical truth that is universally received without doubt or question, as it must be if innate? *Justice*, and keeping of contracts, is that which most men seem to agree in. This is a principle which is thought to extend itself to the dens of thieves, and the confederacies of the greatest villains; and they who have gone furthest towards the putting off of humanity itself, keep faith and rules of justice one

with another. I grant that outlaws themselves do this one amongst another; but it is without receiving these as the innate laws of nature. They practice them as rules of convenience within their own communities: but it is impossible to conceive that he embraces justice as a practical principle, who acts fairly with his fellow-highwayman, and at the same time plunders or kills the next honest man he meets with. Justice and truth are the common ties of society; and therefore even outlaws and robbers, who break with all the world besides, must keep faith and rules of equity amongst themselves, or else they cannot hold together. But will any one say, that those that live by fraud or rapine have innate principles of truth and justice which they allow and assent to?

4. *Moral rules need a proof,* ergo *not innate.* — Another reason that makes me doubt of any innate practical principles is, that I think there cannot any one moral rule be proposed whereof a man may not justly demand a reason; which would be perfectly ridiculous and absurd if they were innate, or so much as self-evident; which every innate principle must needs be, and not need any proof to ascertain its truth, nor want any reason to gain it approbation. He would be thought void of common sense who asked on the one side, or on the other side went to give a reason, "why it is impossible for the same thing to be and not to be." It carries its own light and evidence with it, and needs no other proof: he that understands the terms assents to it for its own sake, or else nothing will ever be able to prevail with him to do it. But should that most unshaken rule of morality and foundation of all social virtue, "that one should do as he would be done unto," be proposed to one who never heard of it before, but yet is of capacity to understand its meaning, might he not without any absurdity ask a reason why? And were not he that proposed it bound to make out the truth and reasonableness of it to him? Which plainly shows it not to be innate; for if it were it could neither want nor receive any proof; but must needs (at least as soon as heard and understood) be received and assented to as an unquestionable truth, which a man can by no means doubt of. So that the truth of all these moral rules plainly

depends upon some other antecedent to them, and from which they must be deduced; which could not be if either they were innate or so much as self-evident.

10. *Men have contrary practical principles.* — He that will carefully peruse the history of mankind, and look abroad into the several tribes of men, and with indifferency survey their actions, will be able to satisfy himself that there is scarce that principle of morality to be named, or rule of virtue to be thought on, (those only excepted that are absolutely necessary to hold society together, which commonly too are neglected betwixt distinct societies,) which is not somewhere or other slighted and condemned by the general fashion of whole societies of men governed by practical opinions and rules of living quite opposite to others.

11. *Whole nations reject several moral rules.* — Here perhaps it will be objected, that it is no argument that the rule is not known, because it is broken. I grant the objection good where men, though they transgress, yet disown not the law; where fear of shame, censure, or punishment carries the mark of some awe it has upon them. But it is impossible to conceive that a whole nation of men should all publicly reject and renounce what every one of them certainly and infallibly knew to be a law, for so they must who have it naturally imprinted on their minds. It is possible men may sometimes own rules of morality which in their private thoughts they do not believe to be true, only to keep themselves in reputation and esteem amongst those who are persuaded of their obligation. But it is not to be imagined that a whole society of men should publicly and professedly disown and cast off a rule which they could not in their own minds but be infallibly certain was a law; nor be ignorant that all men they should have to do with knew it to be such; and therefore must every one of them apprehend from others all the contempt and abhorrence due to one who professes himself void of humanity; and one who, confounding the known and natural measures of right and wrong, cannot but be looked on as the professed enemy of their peace and happiness. Whatever practical principle is innate, cannot but be known to every one to be

just and good. It is therefore little less than a contradiction to suppose that whole nations of men should, both in their professions and practice, unanimously and universally give the lie to what, by the most invincible evidence, every one of them knew to be true, right, and good. This is enough to satisfy us that no practical rule which is anywhere universally, and with public approbation or allowance, transgressed, can be supposed innate. But I have something further to add in answer to this objection.

14. *Those who maintain innate practical principles, tell us not what they are.* — The difference there is amongst men in their practical principles is so evident that I think I need say no more to evince that it will be impossible to find any innate moral rules by this mark of general assent; and it is enough to make one suspect that the supposition of such innate principles is but an opinion taken up at pleasure, since those who talk so confidently of them are so sparing to tell us *which they are.* This might with justice be expected from those men who lay stress upon this opinion; and it gives occasion to distrust either their knowledge or charity, who, declaring that God has imprinted on the minds of men the foundations of knowledge and the rules of living, are yet so little favourable to the information of their neighbours or the quiet of mankind, as not to point out to them which they are, in the variety men are distracted with. But, in truth, were there any such innate principles there would be no need to teach them. Did men find such innate propositions stamped on their minds, they would easily be able to distinguish them from other truths that they afterwards learned and deduced from them, and there would be nothing more easy than to know what and how many they were. There could be no more doubt about their number, than there is about the number of our fingers; and it is like then every system would be ready to give them us by tale. But since nobody, that I know, has ventured yet to give a catalogue of them, they cannot blame those who doubt of these innate principles, since even they who require men to believe that there are such innate propositions, do not tell us what they are. It is easy to foresee, that if different men of different sects should

go about to give us a list of those innate practical principles, they would set down only such as suited their distinct hypotheses, and were fit to support the doctrines of their particular schools or churches; a plain evidence that there are no such innate truths. Nay, a great part of men are so far from finding any such innate moral principles in themselves, that by denying freedom to mankind, and thereby making men no other than bare machines, they take away not only innate, but all moral rules whatsoever, and leave not a possibility to believe any such to those who cannot conceive how anything can be capable of a law that is not a free agent; and upon that ground they must necessarily reject all principles of virtue who cannot put morality and mechanism together, which are not very easy to be reconciled or made consistent.

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Book II

CHAPTER I. OF IDEAS IN GENERAL, AND THEIR ORIGINAL

1. *Idea is the object of thinking.* — Every man being conscious to himself, that he thinks, and that which his mind is applied about, whilst thinking, being the ideas that are there, it is past doubt that men have in their mind several ideas, such as are those expressed by the words, whiteness, hardness, sweetness, thinking, motion, man, elephant, army, drunkenness, and others: it is in the first place then to be inquired, How he comes by them? I know it is a received doctrine, that men have native ideas and original characters stamped upon their minds in their very first being. This opinion I have at large examined already; and, I suppose, what I have said in the foregoing book will be much more easily admitted, when I have shown whence the understanding may get all the ideas it has, and by what ways and degrees they may come into the mind; for which I shall appeal to every one's own observation and experience.

2. *All ideas come from sensation or reflection.* — Let us then suppose the mind to be, as we say, white paper, void of all char-

acters, without any ideas: How comes it to be furnished? Whence comes it by that vast store, which the busy and boundless fancy of man has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, From *experience.* In that all our knowledge is founded, and from that it ultimately derives itself. Our observation, employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring.

3. *The object of sensation one source of ideas.* — First. Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways wherein those objects do affect them; and thus we come by those ideas we have of yellow, white, heat, cold, soft, hard, bitter, sweet, and all those which we call sensible qualities; which when I say the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those perceptions. This great source of most of the ideas we have, depending wholly upon our senses, and derived by them to the understanding, I call, SENSATION.

4. *The operations of our minds the other source of them.* — Secondly. The other fountain, from which experience furnisheth the understanding with ideas, is the perception of the operations of our own minds within us, as it is employed about the ideas it has got; which operations when the soul comes to reflect on and consider, do furnish the understanding with another set of ideas which could not be had from things without; and such are perception, thinking, doubting, believing, reasoning, knowing, willing, and all the different actings of our own minds; which we, being conscious of, and observing in ourselves, do from these receive into our understandings as distinct ideas, as we do from bodies affecting our senses. This source of ideas every man has wholly in himself; and though it be not sense as having nothing to do with external objects, yet it is very like it, and might

properly enough be called *internal sense*. But as I call the other *sensation*, so I call this REFLECTION, the ideas it affords being such only as the mind gets by reflecting on its own operations within itself. By reflection, then, in the following part of this discourse, I would be understood to mean that notice which the mind takes of its own operations, and the manner of them, by reason whereof there come to be ideas of these operations in the understanding. These two, I say, viz., external material things as the objects of sensation, and the operations of our own minds within as the objects of reflection, are, to me, the only originals from whence all our ideas take their beginnings. The term *operations* here, I use in a large sense, as comprehending not barely the actions of the mind about its ideas, but some sort of passions arising sometimes from them, such as is the satisfaction or uneasiness arising from any thought.

5. *All our ideas are of the one or the other of these.* — The understanding seems to me not to have the least glimmering of any ideas which it doth not receive from one of these two. External objects furnish the mind with the ideas of sensible qualities, which are all those different perceptions they produce in us; and the mind furnishes the understanding with ideas of its own operations.

These, when we have taken a full survey of them, and their several modes [combinations, and relations], we shall find to contain all our whole stock of ideas; and that we have nothing in our minds which did not come in one of these two ways. Let any one examine his own thoughts, and thoroughly search into his understanding, and then let him tell me, whether all the original ideas he has there, are any other than of the objects of his senses, or of the operations of his mind considered as objects of his reflection; and how great a mass of knowledge soever he imagines to be lodged there, he will, upon taking a strict view, see that he has not any idea in his mind but what one of these two have imprinted, though perhaps with infinite variety compounded and enlarged by the understanding, as we shall see hereafter.

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CHAPTER II. OF SIMPLE IDEAS

1. *Uncompounded appearances.* — The better to understand the nature, manner, and extent of our knowledge, one thing is carefully to be observed concerning the ideas we have; and that is, that some of them are *simple*, and some *complex*.

Though the qualities that affect our senses are, in the things themselves, so united and blended that there is no separation, no distance between them; yet it is plain the ideas they produce in the mind enter by the senses simple and unmixed. For though the sight and touch often take in from the same object, at the same time, different ideas — as a man sees at once motion and colour, the hand feels softness and warmth in the same piece of wax — yet the simple ideas thus united in the same subject are as perfectly distinct as those that come in by different senses; the coldness and hardness which a man feels in a piece of ice being as distinct ideas in the mind as the smell and whiteness of a lily, or as the taste of sugar and smell of a rose: and there is nothing can be plainer to a man than the clear and distinct perception he has of those simple ideas; which, being each in itself uncompounded, contains in it nothing but one uniform appearance or conception in the mind, and is not distinguishable into different ideas.

2. *The mind can neither make nor destroy them.* — These simple ideas, the materials of all our knowledge, are suggested and furnished to the mind only by those two ways above mentioned, viz., sensation and reflection. When the understanding is once stored with these simple ideas, it has the power to repeat, compare, and unite them, even to an almost infinite variety, and so can make at pleasure new complex ideas. But it is not in the power of the most exalted wit or enlarged understanding, by any quickness or variety of thought, to invent or frame one new simple idea in the mind, not taken in by the ways before mentioned; nor can any force of the understanding destroy those that are there: the dominion of man in this little world of his own understanding, being much-what the

same as it is in the great world of visible things, wherein his power, however managed by art and skill, reaches no farther than to compound and divide the materials that are made to his hand but can do nothing towards the making the least particle of new matter, or destroying one atom of what is already in being. . . .

CHAPTER III. OF SIMPLE IDEAS OF SENSE

1. *Division of simple ideas.* — The better to conceive the ideas we receive from sensation, it may not be amiss for us to consider them in reference to the different ways whereby they make their approaches to our minds, and make themselves perceivable by us.

First, then, there are some which come into our minds by one sense only.

Secondly. There are others that convey themselves into the mind by more senses than one.

Thirdly. Others that are had from reflection only.

Fourthly. There are some that make themselves way, and are suggested to the mind, by all the ways of sensation and reflection.

We shall consider them apart under these several heads.

1. There are some ideas which have admittance only through one sense, which is peculiarly adapted to receive them. Thus light and colours, as white, red, yellow, blue, with their several degrees or shades and mixtures, as green, scarlet, purple, sea-green, and the rest, come in only by the eyes; all kinds of noises, sounds, and tones, only by the ears; the several tastes and smells, by the nose and palate. And if these organs, or the nerves which are the conduits to convey them from without to their audience in the brain, the mind's presence-room (as I may so call it), are, any of them, so disordered as not to perform their functions, they have no postern to be admitted by, no other way to bring themselves into view, and be received by the understanding.

The most considerable of those belonging to the touch are heat, and cold, and solidity; all the rest — consisting almost

wholly in the sensible configuration, as smooth and rough; or else more or less firm adhesion of the parts, as hard and soft, tough and brittle — are obvious enough.

2. I think it will be needless to enumerate all the particular simple ideas belonging to each sense. Nor indeed is it possible if we would, there being a great many more of them belonging to most of the senses than we have names for. . . . I shall therefore, in the account of simple ideas I am here giving, content myself to set down only such as are most material to our present purpose, or are in themselves less apt to be taken notice of, though they are very frequently the ingredients of our complex ideas; amongst which I think I may well account "solidity," which therefore I shall treat of in the next chapter.

CHAPTER IV. IDEA OF SOLIDITY

1. *We receive this idea from touch.* — The idea of *solidity* we receive by our touch; and it arises from the resistance which we find in body to the entrance of any other body into the place it possesses, till it has left it. There is no idea which we receive more constantly from sensation than solidity. Whether we move or rest, in what posture soever we are, we always feel something under us that supports us, and hinders our farther sinking downwards; and the bodies which we daily handle make us perceive that whilst they remain between them, they do, by an insurmountable force, hinder the approach of the parts of our hands that press them. That which thus hinders the approach of two bodies, when they are moving one towards another, I call *solidity*. I will not dispute whether this acceptation of the word "solid" be nearer to its original signification than that which mathematicians use it in; it suffices that, I think, the common notion of "solidity," will allow, if not justify, this use of it; but if any one think it better to call it *impenetrability*, he has my consent. Only I have thought the term *solidity* the more proper to express this idea, not only because of its vulgar use in that sense, but also because it carries something more of positive in it than *impenetrability*, which is negative, and is, perhaps,

more a consequence of solidity than solidity itself. This, of all other, seems the idea most intimately connected with and essential to body, so as nowhere else to be found or imagined but only in matter; and though our senses take no notice of it but in masses of matter, of a bulk sufficient to cause a sensation in us; yet the mind, having once got this idea from such grosser sensible bodies, traces it farther and considers it, as well as figure, in the minutest particle of matter that can exist, and finds it inseparably inherent in body, wherever or however modified.

2. *Solidity fills space.* — This is the idea which belongs to body, whereby we conceive it to fill space. The idea of which filling of space is, that where we imagine any space taken up by a solid substance, we conceive it so to possess it that it excludes all other solid substances, and will for ever hinder any two other bodies, that move towards one another in a straight line, from coming to touch one another, unless it removes from between them in a line not parallel to that which they move in. This idea of it, the bodies which we ordinarily handle sufficiently furnish us with.

3. *Distinct from space.* — This resistance, whereby it keeps other bodies out of the space which it possesses, is so great that no force, how great soever, can surmount it. All the bodies in the world, pressing a drop of water on all sides, will never be able to overcome the resistance which it will make, as soft as it is, to their approaching one another, till it be removed out of their way: whereby our idea of solidity is distinguished both from pure space, which is capable neither of resistance nor motion, and from the ordinary idea of hardness. For a man may conceive two bodies at a distance so as they may approach one another without touching or displacing any solid thing till their superficies come to meet; whereby, I think, we have the clear idea of space without solidity. For (not to go so far as annihilation of any particular body), I ask, whether a man cannot have the idea of the motion of one single body alone, without any other succeeding immediately into its place? I think it is evident he can: the idea of motion in one body no more including the idea of motion in another, than the idea of a square figure in one

body includes the idea of a square figure in another. I do not ask, whether bodies do so exist, that the motion of one body cannot really be without the motion of another. To determine this either way is to beg the question for or against a *vacuum*. But my question is, whether one cannot have the idea of one body moved, whilst others are at rest? And I think this no one will deny: if so, then the place it deserted gives us the idea of pure space without solidity, whereinto another body may enter without either resistance or protrusion of any thing. When the sucker in a pump is drawn, the space it filled in the tube is certainly the same, whether any other body follows the motion of the sucker or not: nor does it imply a contradiction that upon the motion of one body, another that is only contiguous to it should not follow it. The necessity of such a motion is built only on the supposition, that the world is full, but not on the distinct ideas of space and solidity; which are as different as resistance and not-resistance, protrusion and not-protrusion. And that men have ideas of space without body, their very disputes about a *vacuum* plainly demonstrate, as is showed in another place.

4. *From hardness.* — Solidity is hereby also differenced from hardness, in that solidity consists in repletion, and so an utter exclusion of other bodies out of the space it possesses; but hardness, in a firm cohesion of the parts of matter, making up masses of a sensible bulk, so that the whole does not easily change its figure. And, indeed, *hard* and *soft* are names that we give to things only in relation to the constitutions of our own bodies; that being generally called "hard" by us which will put us to pain sooner than change figure by the pressure of any part of our bodies; and that, on the contrary, "soft" which changes the situation of its parts upon an easy and unpainful touch.

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5. *On solidity depends impulse, resistance, and protrusion.* — By this idea of solidity is the extension of body distinguished from the extension of space: the extension of body being nothing but the cohesion or continuity of solid, separable, movable parts; and the extension of space, the continuity of unsolid, inseparable,

and immovable parts. Upon the solidity of bodies also depends their mutual impulse, resistance, and protrusion. Of pure space, then, and solidity, there are several (amongst which I confess myself one) who persuade themselves they have clear and distinct ideas: and that they can think on space without any thing in it that resists or is protruded by body. This is the idea of pure space, which they think they have as clear as any idea they can have of the extension of body; the idea of the distance between the opposite parts of a concave superficies being equally as clear without as with the idea of any solid parts between; and on the other side they persuade themselves that they have, distinct from that of pure space, the idea of something that fills space, that can be protruded by the impulse of other bodies, or resist their motion. If there be others that have not these two ideas distinct, but confound them, and make but one of them, I know not how men who have the same idea under different names, or different ideas under the same name, can in that case talk with one another; any more than a man who, not being blind or deaf, has distinct ideas of the colour of scarlet and the sound of a trumpet, would discourse concerning scarlet-colour with the blind man I mention in another place, who fancied that the idea of scarlet was like the sound of a trumpet.

6. *What it is.* — If any one asks me, *What this solidity is*, I send him to his senses to inform him: let him put a flint or a football between his hands, and then endeavour to join them, and he will know. If he thinks this not a sufficient explication of solidity, what it is, and wherein it consists, I promise to tell him what it is, and wherein it consists, when he tells me what thinking is, or wherein it consists; or explains to me what extension or motion is, which perhaps seems much easier. The simple ideas we have are such as experience teaches them us; but if, beyond that, we endeavour by words to make them clearer in the mind, we shall succeed no better than if we went about to clear up the darkness of a blind man's mind by talking, and to discourse into him the ideas of light and colours. The reason of this I shall show in another place.

CHAPTER VI. OF SIMPLE IDEAS OF REFLECTION

1. *Simple ideas of reflection are the operations of the mind about its other ideas.* — The mind, receiving the ideas mentioned in the foregoing chapters from without, when it turns its view inward upon itself, and observes its own actions about those ideas it has, takes from thence other ideas, which are as capable to be the objects of its contemplation as any of those it received from foreign things.

2. *The idea of perception, and idea of willing, we have from reflection.* — The two great and principal actions of the mind, which are most frequently considered, and which are so frequent that every one that pleases may take notice of them in himself, are these two: *Perception* or *Thinking;* and *Volition* or *Willing.* [The power of thinking is called the *Understanding*, and the power of volition is called the *Will;* and these two powers or abilities in the mind are denominated "faculties."] . . .

CHAPTER VII. OF SIMPLE IDEAS OF BOTH SENSATION AND REFLECTION

1. *Pleasure and pain.* — There be other simple ideas which convey themselves into the mind by all the ways of sensation and reflection; viz., *pleasure* or *delight,* and its opposite, *pain* or *uneasiness; power; existence; unity.*

2. Delight or uneasiness, one or other of them, join themselves to almost all our ideas both of sensation and reflection; and there is scarce any affection of our senses from without, any retired thought of our mind within, which is not able to produce in us pleasure or pain. By "pleasure" and "pain," I would be understood to signify whatsoever delights or molests us; whether it arises from the thoughts of our minds, or any thing operating on our bodies. For whether we call it "satisfaction, delight, pleasure, happiness," &c., on the one side, or "uneasiness, trouble, pain, torment, anguish, misery," &c., on the other, they are still but different degrees of the same thing, and belong to the

ideas of pleasure and pain, delight or uneasiness; which are the names I shall most commonly use for those two sorts of ideas.

6. *Pleasure and pain.* — Though what I have here said may not perhaps make the ideas of pleasure and pain clearer to us than our own experience does, which is the only way that we are capable of having them; yet the consideration of the reason why they are annexed to so many other ideas, serving to give us due sentiments of the wisdom and goodness of the Sovereign Disposer of all things, may not be unsuitable to the main end of these inquiries: the knowledge and veneration of Him being the chief end of all our thoughts, and the proper business of all our understandings.

7. *Existence and unity.* — Existence and unity are two other ideas that are suggested to the understanding by every object without, and every idea within. When ideas are in our minds, we consider them as being actually there, as well as we consider things to be actually without us: which is, that they exist, or have existence: and whatever we can consider as one thing, whether a real being or idea, suggests to the understanding the idea of unity.

8. *Power.* — Power also is another of those simple ideas which we receive from sensation and reflection. For, observing in ourselves that we do and can think, and that we can at pleasure move several parts of our bodies which were at rest; the effects also that natural bodies are able to produce in one another occurring every moment to our senses, we both these ways get the idea of power.

9. *Succession.* — Besides these there is another idea, which though suggested by our senses, yet is more constantly offered us by what passes in our minds; and that is the idea of succession. For if we look immediately into ourselves, and reflect on what is observable there, we shall find our ideas always, whilst we are awake or have any thought, passing in train, one going and another coming without intermission.

10. *Simple ideas the materials of all our knowledge.* — These, if they are not all, are at least (as I think) the most considerable

of those simple ideas which the mind has, and out of which is made all its other knowledge: all of which it receives only by the two forementioned ways of sensation and reflection.

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CHAPTER VIII. SOME FARTHER CONSIDERATIONS CONCERNING OUR SIMPLE IDEAS OF SENSATION

1. *Positive ideas from privative causes.* — Concerning the simple ideas of Sensation it is to be considered, that whatsoever is so constituted in nature as to be able, by affecting our senses, to cause any perception in the mind, both thereby produce in the understanding a simple idea; which, whatever be the external cause of it, when it comes to be taken notice of by our discerning faculty, it is by the mind looked on and considered there to be a real positive idea in the understanding, as much as any other whatsoever; though perhaps the cause of it be but a privation in the subject.

2. Thus the ideas of heat and cold, light and darkness, white and black, motion and rest, are equally clear and positive ideas in the mind; though perhaps some of the causes which produce them are barely privations in those subjects from whence our senses derive those ideas. These the understanding, in its view of them, considers all as distinct positive ideas without taking notice of the causes that produce them; which is an inquiry not belonging to the idea as it is in the understanding, but to the nature of the things existing without us. These are two very different things, and carefully to be distinguished; it being one thing to perceive and know the idea of white or black, and quite another to examine what kind of particles they must be, and how ranged in the superficies, to make any object appear white or black.

7. *Ideas in the mind, qualities in bodies.* — To discover the nature of our *ideas* the better, and to discourse of them intelligibly, it will be convenient to distinguish them, as they are ideas or perceptions in our minds: and as they are modifications of

matter in the bodies that cause such perceptions in us; that so we may not think (as perhaps usually is done) that they are exactly the images and resemblances of something inherent in the subject; most of those of sensation being in the mind no more the likeness of something existing without us than the names that stand for them are the likeness of our ideas, which yet upon hearing they are apt to excite in us.

8. Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call *idea;* and the power to produce any idea in our mind, I call *quality* of the subject wherein that power is. Thus a snowball having the power to produce in us the ideas of white, cold, and round, the power to produce those ideas in us as they are in the snowball, I call *qualities;* and as they are sensations or perceptions in our understandings, I call them *ideas;* which *ideas*, if I speak of them sometimes as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us.

9. *Primary qualities.* — [Qualities thus considered in bodies are, First, such as are utterly inseparable from the body, in what estate soever it be;] and such as, in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter, though less than to make itself singly be perceived by our senses; *v. g.*, take a grain of wheat, divide it into two parts, each part has still solidity, extension, figure, and mobility; divide it again, and it retains still the same qualities: and so divide it on till the parts become insensible, they must retain still each of them all those qualities. For, division (which is all that a mill or pestle or any other body does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from any body, but only makes two or more distinct separate masses of matter of that which was but one before; all which distinct masses, reckoned as so many distinct bodies, after division, make a certain number. [These I call ***original*** or ***primary*** qualities of

body, which I think we may observe to produce simple ideas in us, viz., solidity, extension, figure, motion or rest, and number.

10. *Secondary qualities.* — Secondly. Such qualities, which in truth are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities, *i. e.*, by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, &c., these I call *secondary* qualities. To these might be added a third sort, which are allowed to be barely powers, though they are as much real qualities in the subject as those which I, to comply with the common way of speaking, call qualities, but, for distinction, *secondary* qualities. For, the power in fire to produce a new colour or consistency in wax or clay, by its primary qualities, is as much a quality in fire, as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before, by the same primary qualities, viz., the bulk, texture, and motion of its insensible parts.]

11. [*How primary qualities produce their ideas.* — The next thing to be considered is, how bodies produce ideas in us; and that is manifestly by impulse, the only way which we can conceive bodies to operate in.]

12. If, then, external objects be not united to our minds when they produce ideas therein, and yet we perceive these *original* qualities in such of them as singly fall under our senses, it is evident that some motion must be thence continued by our nerves, or animal spirits, by some parts of our bodies, to the brain, or the seat of sensation, there to produce in our minds the particular ideas we have of them. And since the extension, figure, number, and motion of bodies of an observable bigness, may be perceived at a distance by the sight, it is evident some singly imperceptible bodies must come from them to the eyes, and thereby convey to the brain some motion which produces these ideas which we have of them in us.

13. *How secondary.* — After the same manner that the ideas of these original qualities are produced in us, we may conceive that the ideas of *secondary* qualities are also produced, viz., by

the operation of insensible particles on our senses. For it being manifest that there are bodies, and good store of bodies, each whereof are so small that we cannot by any of our senses discover either their bulk, figure, or motion (as is evident in the particles of the air and water, and other extremely smaller than those, perhaps as much smaller than the particles of air or water as the particles of air or water are smaller than peas or hailstones): let us suppose at present that the different motions and figures, bulk and number, of such particles, affecting the several organs of our senses, produce in us those different sensations which we have from the colours and smells of bodies; *v. g.*, that a violet, by the impulse of such insensible particles of matter of peculiar figures and bulks, and in different degrees and modifications of their motions, causes the ideas of the blue colour and sweet scent of that flower to be produced in our minds; it being no more impossible to conceive that God should annex such ideas to such motions, with which they have no similitude, than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which the idea hath no resemblance.

14. What I have said concerning colours and smells may be understood also of tastes and sounds, and other the like sensible qualities; which, whatever reality we by mistake attribute to them, are in truth nothing in the objects themselves, but powers to produce various sensations in us, and depend on those primary qualities, viz., bulk, figure, texture, and motion of parts [as I have said].

15. *Ideas of primary qualities are resemblances; of secondary, not.* — From whence I think it is easy to draw this observation, that the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves; but the ideas produced in us by these secondary qualities have no resemblance of them at all. There is nothing like our ideas existing in the bodies themselves. They are, in the bodies we denominate from them, only a power to produce those sensations in us; and what is sweet, blue, or warm in idea, is but the certain bulk, figure, and motion of the insensible parts in the bodies themselves, which we call so.

16. Flame is denominated *hot* and *light;* snow. *white* and *cold;* and manna, *white* and *sweet,* from the ideas they produce in us, which qualities are commonly thought to be the same in those bodies that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror; and it would by most men be judged very extravagant, if one should say otherwise. And yet he that will consider that the same fire that at one distance produces in us the sensation of warmth, does at a nearer approach produce in us the far different sensation of pain, ought to bethink himself what reason he has to say, that this idea of warmth which was produced in him by the fire, is actually *in the fire,* and his idea of pain which the same fire produced in him the same way is *not* in the fire. Why is whiteness and coldness in snow and pain not, when it produces the one and the other idea in us; and can do neither but by the bulk, figure, number, and motion of its solid parts?

17. The particular bulk, number, figure, and motion of the parts of fire or snow are really in them, whether any one's senses perceive them or no; and therefore they may be called *real* qualities, because they really exist in those bodies. But light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colours, nor the ears hear sounds; let the palate not taste, nor the nose smell; and all colours, tastes, odours, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, *i. e.,* bulk, figure, and motion of parts.

23. *Three sorts of qualities in bodies.* — The qualities then that are in bodies, rightly considered, are of three sorts: —

First. The bulk, figure, number, situation, and motion or rest of their solid parts; those are in them, whether we perceive them or not; and when they are of that size that we can discover them, we have by these ideas of the thing as it is in itself, as is plain in artificial things. These I call *primary* qualities.

Secondly. The power that is in any body, by reason of its insensible primary qualities, to operate after a peculiar manner on any of our senses, and thereby produce in us the different

ideas of several colours, sounds, smells, tastes, &c. These are usually called *sensible* qualities.

Thirdly. The power that is in any body, by reason of the particular constitution of its primary qualities, to make such a change in the bulk, figure, texture, and motion of another body, as to make it operate on our senses differently from what it did before. Thus the sun has a power to make wax white, and fire, to make lead fluid. [These are usually called *powers*.]

The first of these, as has been said, I think may be properly called real, original, or primary qualities, because they are in the things themselves, whether they are perceived or no; and upon their different modifications it is that the secondary qualities depend.

The other two are only powers to act differently upon other things, which powers result from the different modifications of those primary qualities.

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CHAPTER IX. OF PERCEPTION

1. *Perception the first simple idea of reflection.* — Perception, as it is the first faculty of the mind exercised about our ideas, so it is the first and simplest idea we have from reflection, and is by some called "thinking" in general. Though thinking, in the propriety of the English tongue, signifies that sort of operation of the mind about its ideas wherein the mind is active; where it, with some degree of voluntary attention, considers any thing: for in bare, naked perception, the mind is, for the most part, only passive, and what it perceives it cannot avoid perceiving.

2. *Is only when the mind receives the impression.* — What perception is, every one will know better by reflecting on what he does himself, when he sees, hears, feels, &c., or thinks, than by any discourse of mine. Whoever reflects on what passes in his own mind, cannot miss it; and if he does not reflect, all the words in the world cannot make him have any notion of it.

3. This is certain, that whatever alterations are made in the body, if they reach not the mind; whatever impressions are made

on the outward parts, if they are not taken notice of within; there is no perception. Fire may burn our bodies with no other effect than it does a billet, unless the motion be continued to the brain, and there the sense of heat or idea of pain be produced in the mind, wherein consists actual perception.

8. *Ideas of sensation often changed by the judgment.* — We are farther to consider concerning perception, that the ideas we receive by sensation are often in grown people altered by the judgment without our taking notice of it. When we set before our eyes a round globe of any uniform colour, *v. g.*, gold, alabaster, or jet, it is certain that the idea thereby imprinted in our mind is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having, by use, been accustomed to perceive what kind of appearance convex bodies are wont to make in us; what alterations are made in the reflections of light by the difference of the sensible figures of bodies; — the judgment presently, by an habitual custom, alters the appearances into their causes; so that, from that which truly is variety of shadow or colour collecting the figure, it makes it pass for a mark of figure, and frames to itself the perception of a convex figure and an uniform colour; when the idea we receive from thence is only a plane variously coloured, as is evident in painting. [To which purpose I shall here insert a problem of that very ingenious and studious promoter of real knowledge, the learned and worthy Mr. Molineaux, which he was pleased to send me in a letter some months since: and it is this: "Suppose a man *born* blind, and now adult, and taught by his *touch* to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and the other, which is the cube, which the sphere. Suppose then the cube and sphere placed on a table, and the blind man to be made to see; quære, Whether *by his sight, before he touched them*. he could now distinguish and tell which is the globe, which the cube?" To which the acute and judicious proposer answers: "Not. For though he has obtained the experience of how a globe, how a cube, affects his touch; yet he has not yet obtained the experience, that what affects his touch so or so, must affect his

sight so or so; or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube." I agree with this thinking gentleman whom I am proud to call my friend, in his answer to this his problem; and am of opinion, that the blind man, at first sight, would not be able with certainty to say which was the globe, which the cube, whilst he only saw them; though he could unerringly name them by his touch, and certainly distinguish them by the difference of their figures felt. This I have set down, and leave with my reader, as an occasion for him to consider how much he may be beholden to experience, improvement, and acquired notions, where he thinks he has not the least use of, or help from them. And the rather, because this observing gentleman farther adds, that having upon the occasion of my book proposed this to divers very ingenious men, he hardly ever met with one that at first gave the answer to it which he thinks true, till by hearing his reasons they were convinced.]

9. But this is not, I think, usual in any of our ideas but those received by sight; because sight, the most comprehensive of all our senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense; and also the far different ideas of space, figure and motion, the several varieties whereof change the appearances of its proper objects, viz., light and colours; we bring ourselves by use to judge of the one by the other. This, in many cases, by a settled habit in things whereof we have frequent experience, is performed so constantly and so quick, that we take that for the perception of our sensation which is an idea formed by our judgment; so that one, viz., that of sensation, serves only to excite the other, and is scarce taken notice of itself; as a man who reads or hears with attention and understanding, takes little notice of the characters or sounds, but of the ideas that are excited in him by them.

15. *Perception the inlet of knowledge.* — Perception, then, being the *first* step and degree towards knowledge, and the inlet of all the materials of it, the fewer senses any man as well as any other creature hath; and the fewer and duller the impressions are that are made by them: and the duller the faculties are that

are employed about them,— the more remote are they from that knowledge which is to be found in some men. But this, being in great variety of degrees (as may be perceived amongst men), cannot certainly be discovered in the several species of animals, much less in their particular individuals. It suffices me only to have remarked here, that perception is the first operation* of all our intellectual faculties, and the inlet of all knowledge into our minds. . . .

CHAPTER XII. OF COMPLEX IDEAS

1. *Made by the mind out of simple ones.* — We have hitherto considered those ideas, in the reception whereof the mind is only passive, which are those simple ones received from sensation and reflection before mentioned, whereof the mind cannot make one to itself, nor have any idea which does not wholly consist of them. [But as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas, as the materials and foundations of the rest, the others are framed. The acts of the mind wherein it exerts its power over its simple ideas are chiefly these three: (1) Combining several simple ideas into one compound one; and thus all *complex ideas* are made. (2) The second is bringing two ideas, whether simple or complex, together, and setting them by one another, so as to take a view of them at once, without uniting them into one; by which way it gets all its *ideas of relations*. (3) The third is separating them from all other ideas that accompany them in their real existence; this is called "abstraction:" and thus all its *general ideas* are made. This shows

* The other operations of the mind discussed by Locke under simple ideas are retention or memory, discerning, comparing, compounding, and abstraction. His conclusion is then as follows: chap. xi, § 15. *These are the beginnings of human knowledge.* — And thus I have given a short and, I think, true history of the first beginnings of human knowledge, whence the mind has its first objects, and by what steps it makes its progress to the laying in and storing up those ideas out of which is to be framed all the knowledge it is capable of; wherein I must appeal to experience and observation whether I am in the right: the best way to come to truth being to examine things as really they are, and not to conclude they are as we fancy of ourselves, or have been taught by others to imagine.

man's power and its way of operation to be much the same in the material and intellectual world. For, the materials in both being such as he has no power over, either to make or destroy, all that man can do is either to unite them together, or to set them by one another, or wholly separate them. I shall here begin with the first of these in the consideration of complex ideas, and come to the other two in their due places.] As simple ideas are observed to exist in several combinations united together, so the mind has a power to consider several of them united together as one idea; and that not only as they are united in external objects, but as itself has joined them. Ideas thus made up of several simple ones put together I call *complex;* such as are beauty, gratitude, a man, an army, the universe; which, though complicated of various simple ideas or complex ideas made up of simple ones, yet are, when the mind pleases, considered each by itself as one entire thing, and signified by one name.

2. *Made voluntarily.* — In this faculty of repeating and joining together its ideas, the mind has great power in varying and multiplying the objects of its thoughts infinitely beyond what sensation or reflection furnished it with; but all this still confined to those simple ideas which it received from those two sources, and which are the ultimate materials of all its compositions. For, simple ideas are all from things themselves; and of these the mind can have no more nor other than what are suggested to it. It can have no other ideas of sensible qualities than what come from without by the senses, nor any ideas of other kind of operations of a thinking substance than what it finds in itself: but when it has once got these simple ideas, it is not confined barely to observation, and what offers itself from without; it can, by its own power, put together those ideas it has, and make new complex ones which it never received so united.

3. *Are either modes, substances, or relations.* — Complex ideas, however compounded and decompounded, though their number be infinite, and the variety endless wherewith they fill and entertain the thoughts of men, yet I think they may be all reduced under these three heads: 1. Modes. 2. Substances. 3. Relations.

4. *Modes.* — First. *Modes* I call such complex ideas which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependences on, or affections of, substances; such are the ideas signified by the words, triangle, gratitude, murder, &c. And if in this I use the word "mode" in somewhat a different sense from its ordinary signification, I beg pardon; it being unavoidable in discourses differing from the ordinary received notions, either to make new words or to use old words in somewhat a new signification: the latter whereof, in our present case, is perhaps the more tolerable of the two.

5. *Simple and mixed modes.* — Of these *modes* there are two sorts which deserve distinct consideration. First. There are some which are only variations or different combinations of the same simple idea, without the mixture of any other, as a dozen, or score; which are nothing but the ideas of so many distinct units added together: and these I call *simple modes*, as being contained within the bounds of one simple idea. Secondly. There are others compounded of simple ideas, of several kinds, put together to make one complex one; *v. g.*, beauty, consisting of a certain composition of colour and figure, causing delight in the beholder; theft, which, being the concealed change of the possession of any thing, without the consent of the proprietor, contains, as is visible, a combination of several ideas of several kinds; and these I call *mixed modes*.

6. *Substances single or collective.* — Secondly. The ideas of *substances* are such combinations of simple ideas as are taken to represent distinct particular things subsisting by themselves, in which the supposed or confused idea of substance, such as it is, is always the first and chief. Thus, if to substance be joined the simple idea of a certain dull, whitish colour, with certain degrees of weight, hardness, ductility, and fusibility, we have the idea of lead; and a combination of the ideas of a certain sort of figure, with the powers of motion, thought, and reasoning, joined to substance, make the ordinary idea of a man. Now of substances also there are two sorts of ideas: — one of *single* substances, as they exist separately, as of a man or a sheep; the

other of several of those put together, as an army of men or flock of sheep — which *collective* ideas of several substances thus put together, are as much each of them one single idea as that of a man or an unit.

7. *Relation.* — Thirdly. The last sort of complex ideas is that we call *relation*, which consists in the consideration and comparing one idea with another. Of these several kinds we shall treat in their order.

8. *The abstrusest ideas from the two sources.* — If we trace the progress of our minds, and with attention observe how it repeats, adds together, and unites its simple ideas received from sensation or reflection, it will lead us farther than at first perhaps we should have imagined. And I believe we shall find, if we warily observe the originals of our notions, that even *the most abstruse* ideas, how remote soever they may seem from sense, or from any operation of our own minds, are yet only such as the understanding frames to itself, by repeating and joining together ideas that it had either from objects of sense, or from its own operations about them; so that those even large and abstract ideas are derived from sensation or reflection, being no other than what the mind, by the ordinary use of its own faculties, employed about ideas received from objects of sense, or from the operations it observes in itself about them, may and does attain unto.

CHAPTER XXIII. OF OUR COMPLEX IDEAS OF SUBSTANCES

1. *Ideas of substances, how made.* — The mind being, as I have declared, furnished with a great number of the simple ideas conveyed in by the senses, as they are found in exterior things, or by reflection on its own operations, takes notice, also, that a certain number of these simple ideas go constantly together; which being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick despatch, are called, so united in one subject, by one name; which. bv inadvertency, we are apt afterward to talk of and

consider as one simple idea, which indeed is a complication of many ideas together: because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some *substratum* wherein they do subsist, and from which they do result; which therefore we call *substance*.

2. *Our idea of substance in general.* — So that if any one will examine himself concerning his notion of pure substance in general, he will find he has no other idea of it at all, but only a supposition of he knows not what support of such qualities which are capable of producing simple ideas in us; which qualities are commonly called "accidents." If any one should be asked, "What is the subject wherein colour or weight inheres?" he would have nothing to say but, "The solid extended parts." And if he were demanded, "What is it that solidity and extension inhere in," he would not be in a much better case than the Indian before mentioned, who, saying that the world was supported by a great elephant, was asked, what the elephant rested on? to which his answer was, "A great tortoise;" but being again pressed to know what gave support to the broad-backed tortoise, replied, — *something, he knew not what.* And thus here, as in all other cases where we use words without having clear and distinct ideas, we talk like children; who, being questioned what such a thing is which they know not, readily give this satisfactory answer, — that it is *something;* which in truth signifies no more, when so used, either by children or men, but that they know not what; and that the thing they pretend to know and talk of, is what they have no distinct idea of at all, and so are perfectly ignorant of it, and in the dark. The idea, then, we have to which we give the general name *substance*, being nothing but the supposed, but unknown, support of those qualities we find existing, which we imagine cannot subsist *sine re substante*, "without something to support them," we call that support *substantia;* which, according to the true import of the word, is, in plain English, *standing under*, or *upholding*.

3. *Of the sorts of substances.* — An obscure and relative idea of substance in general being thus made. we come to have the

ideas of particular sorts of substances, by collecting such combinations of simple ideas as are by experience and observation of men's senses taken notice of to exist together, and are therefore supposed to flow from the particular internal constitution or unknown essence of that substance. Thus we come to have the ideas of a man, horse, gold, water, &c., of which substances, whether any one has any other clear idea, farther than of certain simple ideas co-existing together, I appeal to every one's own experience. It is the ordinary qualities observable in iron or a diamond, put together, that make the true complex idea of those substances, which a smith or a jeweller commonly knows better than a philosopher; who, whatever substantial forms he may talk of, has no other idea of those substances than what is framed by a collection of those simple ideas which are to be found in them. Only we must take notice, that our complex ideas of substances, besides all these simple ideas they are made up of, have always the confused idea of something to which they belong, and in which they subsist: and therefore when we speak of any sort of substance, we say it is a thing having such or such qualities; as, body is a thing that is extended, figured, and capable of motion; spirit; a thing capable of thinking; and so hardness, friability, and power to draw iron, we say, are qualities to be found in a loadstone. These and the like fashions of speaking, intimate that the substance is supposed always *something besides* the extension, figure, solidity, motion, thinking, or other observable ideas, though we know not what it is.

4. *No clear idea of substance in general.* — Hence, when we talk or think of any particular sort of corporeal substances, as horse, stone, &c., though the idea we have of either of them be but the complication or collection of those several simple ideas of sensible qualities which we used to find united in the thing called horse or stone; yet because we cannot conceive how they should subsist alone, nor one in another, we suppose them existing in, and supported by, some common subject; which support we denote by the name substance, though it be certain we have no clear or distinct idea of that thing we suppose a support.

5. *As clear an idea of spirit as body.* — The same happens concerning the operations of the mind; viz., thinking, reasoning, fearing, &c., which we, concluding not to subsist of themselves, nor apprehending how they can belong to body, or be produced by it, we are apt to think these the actions of some other substance, which we call spirit; whereby yet it is evident, that having no other idea or notion of matter, but something wherein those many sensible qualities which affect our senses do subsist; by supposing a substance wherein thinking, knowing, doubting, and a power of moving, &c., do subsist; we have as clear a notion of the substance of spirit as we have of body: the one being supposed to be (without knowing what it is) the *substratum* to those simple ideas we have from without; and the other supposed (with a like ignorance of what it is) to be the *substratum* to those operations which we experiment in ourselves within. It is plain, then, that the idea of corporeal substance in matter is as remote from our conceptions and apprehensions as that of spiritual substance, or spirit; and therefore, from our not having any notion of the substance of spirit, we can no more conclude its non-existence than we can, for the same reason, deny the existence of body: it being as rational to affirm there is no body, because we have no clear and distinct idea of the substance of matter, as to say there is no spirit, because we have no clear and distinct idea of the substance of a spirit.

6. *Of the sorts of substances.* — Whatever therefore be the secret and abstract nature of substance in general, all the ideas we have of particular distinct sorts of substances, are nothing but several combinations of simple ideas co-existing in such, though unknown, cause of their union, as makes the whole subsist of itself. It is by such combinations of simple ideas, and nothing else, that we represent particular sorts of substances to ourselves; such are the ideas we have of their several species in our minds; and such only do we, by their specific names, signify to others; *v. g.*, man, horse, sun, water, iron; upon hearing which words every one, who understands the language, frames in his mind a combination of those several simple ideas which he has usually observed or fancied to exist together under that denomi-

nation; all which he supposes to rest in, and be, as it were, adherent to, that unknown common subject, which inheres not in anything else: though in the mean time it be manifest, and every one upon inquiry into his own thoughts will find, that he has no other idea of any substance, *v. g.*, let it be gold, horse, iron, man, vitriol, bread, but what he has barely of those sensible qualities which he supposes to inhere with a supposition of such a *substratum* as gives, as it were, a support to those qualities, or simple ideas, which he has observed to exist united together. Thus, the idea of the sun — What is it but an aggregate of those several simple ideas, bright, hot, roundish, having a constant regular motion, at a certain distance from us, — and perhaps some other? as he who thinks and discourses of the sun has been more or less accurate in observing those sensible qualities, ideas, or properties which are in that thing which he calls the sun.

9. *Three sorts of ideas make our complex ones of substances.* — The ideas that make our complex ones of corporeal substances are of these three sorts. First. The ideas of the primary qualities of things which are discovered by our senses, and are in them even when we perceive them not: such are the bulk, figure, number, situation, and motion of the parts of bodies; which are really in them, whether we take notice of them or no. Secondly. The sensible secondary qualities, which, depending on these, are nothing but the powers those substances have to produce several ideas in us by our senses; which ideas are not in the things themselves otherwise than as any thing is in its cause. Thirdly. The aptness we consider in any substance to give or receive such alterations of primary qualities as that the substance so altered should produce in us different ideas from what it did before; these are called active and passive powers: all which powers, as far as we have any notice or notion of them, terminate only in sensible simple ideas. For, whatever alteration a loadstone has the power to make in the minute particles of iron, we should have no notion of any power it had at all to operate on iron, did not its sensible motion discover it; and I doubt not but there are a thousand changes that bodies we daily handle have a

power to cause in one another, which we never suspect, because they never appear in sensible effects.

37. *Recapitulation.* — And thus we have seen what kind of ideas we have of substances of all kinds, wherein they consist, and how we came by them. From whence, I think, it is very evident,

First, That all our ideas of the several sorts of substances are nothing but collections of simple ideas, with a supposition of *something* to which they belong, and in which they subsist; though of this supposed something we have no clear distinct idea at all.

Secondly, That all the simple ideas that, thus united in one common *substratum*, make up our complex ideas of several sorts of substances, are no other but such as we have received from sensation or reflection. So that even in those which we think we are most intimately acquainted with, and that come nearest the comprehension of our most enlarged conceptions, we cannot reach beyond those simple ideas. And even in those which seem most remote from all we have to do with, and do infinitely surpass any thing we can perceive in ourselves by reflection, or discover by sensation in other things, we can attain to nothing but those simple ideas which we originally received from sensation or reflection; as is evident in the complex ideas we have of angels, and particularly of God himself.

Thirdly, That most of the simple ideas that make up our complex ideas of substances, when truly considered, are only *powers,* however we are apt to take them for positive qualities: *v. g.*, the greatest part of the ideas that make our complex idea of gold are yellowness, great weight, ductility, fusibility, and solubility in *aqua regia,* &c., all united together in an unknown *substratum:* all which ideas are nothing else but so many relations to other substances, and are not really in the gold considered barely in itself, though they depend on those real and primary qualities of its internal constitution, whereby it has a fitness differently to operate and be operated on by several other substances.

Book IV

CHAPTER III. OF THE EXTENT OF HUMAN KNOWLEDGE

1. Knowledge, as has been said, lying in the perception of the agreement or disagreement of any of our ideas, it follows from hence that,

First, No farther than we have ideas. — First, We can have knowledge no farther than we have *ideas.*

2. *Secondly, No farther than we can perceive their agreement or disagreement.* — Secondly, That we can have no knowledge farther than we can have *perception* of that agreement or disagreement: which perception being, (1) Either by *intuition,* or the immediate comparing any two ideas; or, (2) By *reason,* examining the agreement or disagreement of two ideas by the intervention of some others; or, (3) By *sensation,* perceiving the existence of particular things; hence it also follows,

3. *Thirdly, Intuitive knowledge extends itself not to all the relations of all our ideas.* — Thirdly, That we cannot have an *intuitive knowledge* that shall extend itself to all our ideas, and all that we would know about them; because we cannot examine and perceive all the relations they have one to another by juxtaposition, or an immediate comparison one with another. Thus, having the ideas of an obtuse and an acute-angled triangle, both drawn from equal bases, and between parallels, I can by intuitive knowledge perceive the one not to be the other; but cannot that way know whether they be equal or no: because their agreement or disagreement in equality can never be perceived by an immediate comparing them: the difference of figure makes their parts incapable of an exact immediate application; and therefore there is need of some intervening qualities to measure them by, which is demonstration or rational knowledge.

4. *Fourthly, Nor demonstrative knowledge.* — Fourthly, It follows also, from what is above observed, that our *rational knowledge* cannot reach to the whole extent of our ideas: because between two different ideas we would examine, we cannot al-

ways find such mediums as we can connect one to another with an intuitive knowledge, in all the parts of the deduction; and wherever that fails, we come short of knowledge and demonstration.

5. *Fifthly, Sensitive knowledge narrower than either.* — Fifthly, *Sensitive knowledge*, reaching no farther than the existence of things actually present to our senses, is yet much narrower than either of the former.

6. *Sixthly, Our knowledge therefore narrower than our ideas.* — From all which it is evident, that the *extent of our knowledge* comes not only short of the reality of things, but even of the extent of our own ideas. Though our knowledge be limited to our ideas, and cannot exceed them either in extent or perfection: and though these be very narrow bounds in respect of the extent of all being, and far short of what we may justly imagine to be in some even created understandings not tied down to the dull and narrow information that is to be received from some few and not very acute ways of perception, such as are our senses; yet it would be well with us if our knowledge were but as large as our ideas, and there were not many doubts and inquiries concerning the ideas we have, whereof we are not, nor I believe ever shall be in this world, resolved. Nevertheless, I do not question but that human knowledge, under the present circumstances of our beings and constitutions, may be carried much farther than it hitherto has been, if men would sincerely, and with freedom of mind, employ all that industry and labour of thought in improving the means of discovering truth which they do for the colouring or support of falsehood, to maintain a system, interest, or party they are once engaged in.

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But, to return to the argument in hand: our knowledge, I say, is not only limited to the paucity and imperfections of the ideas we have, and which we employ it about, but even comes short of that, too: but how far it reaches, let us now inquire.

7. *How far our knowledge reaches.* — The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz.,

identity, co-existence, relation, and real existence. I shall examine how far our knowledge extends in each of these: —

8. *First. Our knowledge of identity and diversity, as far as our ideas.* — First, As to *identity* and *diversity*, in this way of the agreement or disagreement of ideas, our intuitive knowledge is as far extended as our ideas themselves: and there can be no idea in the mind which it does not presently, by an intuitive knowledge, perceive to be what it is, and to be different from any other.

9. *Secondly. Of co-existence, a very little way.* — Secondly, As to the second sort, which is the agreement or disagreement of our ideas in *co-existence*, in this our knowledge is very short, though in this consists the greatest and most material part of our knowledge concerning substances. For our ideas of the species of substances being, as I have showed, nothing but certain collections of simple ideas united in one subject, and so co-existing together; — *v. g.*, our idea of "flame" is a body hot luminous, and moving upward; of "gold," a body heavy to a certain degree, yellow, malleable, and fusible. These, or some such complex ideas as these in men's minds, do these two names of the different substances, "flame" and "gold," stand for. When we would know any thing farther concerning these, or any other sort of substances, what do we inquire but what other qualities or powers these substances have or have not? which is nothing else but to know what other simple ideas do or do not co-exist with those that make up that complex idea.

18. *Thirdly, Of other relations, it is not easy to say how far.* — As to the third sort of our knowledge, viz., the agreement or disagreement of any of our ideas in any other relation: this, as it is the largest field of our knowledge, so it is hard to determine how far it may extend: because the advances that are made in this part of knowledge depending on our sagacity in finding intermediate ideas that may show the relations and habitudes of ideas, whose co-existence is not considered, it is a hard matter to tell when we are at an end of such discoveries, and when reason has all the helps it is capable of for the finding of proofs, or examining the agreement or disagreement of remote ideas. They that are ignorant of algebra, cannot imagine the wonders in this kind

to be done by it: and what farther improvements and helps, advantageous to other parts of knowledge, the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe, that the ideas of quantity are not those alone that are capable of demonstration and knowledge; and that other, and perhaps more useful, parts of contemplation would afford us certainty, if vices, passions, and domineering interest did not oppose or menace such endeavours.

21. *Fourthly, Of real existence. We have an* INTUITIVE *knowledge of our own,* DEMONSTRATIVE *of God's,* SENSITIVE *of some few other things.* — As to the fourth sort of our knowledge, viz., of the real actual existence of things, we have an intuitive knowledge of our own existence; and a demonstrative knowledge of the existence of a God; of the existence of any thing else, we have no other but a sensitive knowledge, which extends not beyond the objects present to our senses.

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CHAPTER IV. OF THE REALITY OF HUMAN KNOWLEDGE

1. *Objection. Knowledge placed in ideas may be all bare vision.* — I doubt not but my reader by this time may be apt to think that I have been all this while only building a castle in the air; and be ready to say to me, "To what purpose all this stir? 'Knowledge,' say you, 'is only the perception of the agreement or disagreement of our own ideas;' but who knows what those ideas may be? Is there any thing so extravagant as the imaginations of men's brains? Where is the head that has no chimeras in it? Or if there be a sober and a wise man, what difference will there be, by your rules, between his knowledge, and that of the most extravagant fancy in the world? They both have their ideas, and perceive their agreement and disagreement one with another. If there be any difference between them, the advantage will be on the warm-headed man's side, as having the more ideas, and the more lively. And so, by your rules, he will be the more knowing. If it be true, that all knowledge lies only

in the perception of the agreeement or disagreement of our own ideas, the visions of an enthusiast, and the reasonings of a sober man, will be equally certain. It is no matter how things are: so a man observe but the agreement of his own imaginations, and talk conformably, it is all truth, all certainty. Such castles in the air will be as strongholds of truth as the demonstrations of Euclid. That an harpy is not a centaur, is by this way as certain knowledge, and as much a truth, as that a square is not a circle.

"But of what use is all this fine knowledge of men's own imaginations, to a man that inquires after the reality of things? It matters not what men's fancies are, it is the knowledge of things that is only to be prized: it is this alone gives a value to our reasonings, and preference to one man's knowledge over another's, that it is of things as they really are, and not of dreams and fancies."

2. *Answer. Not so where ideas agree with things.* — To which I answer, That if our knowledge of our ideas terminate in them, and reach no farther, where there is something farther intended, our most serious thoughts will be of little more use than the reveries of a crazy brain; and the truths built thereon of no more weight than the discourses of a man who sees things clearly in a dream, and with great assurance utters them. But I hope before I have done to make it evident that this way of certainty, by the knowledge of our own ideas, goes a little farther than bare imagination; and I believe it will appear, that all the certainty of general truths a man has lies in nothing else.

3. It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them. Our knowledge therefore is real only so far as there is a *conformity* between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet I think there be two sorts of ideas that we may be assured agree with things.

4. *As, First, all simple ideas do.* — First, The first are simple ideas, which since the mind, as has been showed, can by no means make to itself, must necessarily be the product of things

operating on the mind in a natural way, and producing therein those perceptions which by the wisdom and will of our Maker they are ordained and adapted to. From whence it follows, that simple ideas are not fictions of our fancies, but the natural and regular productions of things without us really operating upon us; and so carry with them all the conformity which is intended, or which our state requires; for they represent to us things under those appearances which they are fitted to produce in us, whereby we are enabled to distinguish the sorts of particular substances, to discern the states they are in, and so to take them for our necessities, and apply them to our uses. Thus the idea of whiteness or bitterness, as it is in the mind, exactly answering that power which is in any body to produce it there, has all the real conformity it can or ought to have with things without us. And this conformity between our simple ideas and the existence of things is sufficient for real knowledge.

5. *Secondly, All complex ideas except of substances.* — Secondly, All our complex ideas, except those of substances, being archetypes of the mind's own making, not intended to be the copies of any thing, nor referred to the existence of any thing, as to their originals, cannot want any conformity necessary to real knowledge. For that which is not designed to represent any thing but itself, can never be capable of a wrong representation, nor mislead us from the true apprehension of any thing by its dislikeness to it; and such, excepting those of substances, are all our complex ideas: which, as I have showed in another place, are combinations of ideas which the mind by its free choice puts together without considering any connexion they have in nature. And hence it is, that in all these sorts the ideas themselves are considered as the archetypes, and things no otherwise regarded but as they are conformable to them. So that we cannot but be infallibly certain, that all the knowledge we attain concerning these ideas is real, and reaches things themselves; because in all our thoughts, reasonings, and discourses of this kind, we intend things no farther than as they are conformable to our ideas. So that in these we cannot miss of a certain and undoubted reality.

6. *Hence the reality of mathematical knowledge.* — I doubt

not but it will be easily granted that the knowledge we have of mathematical truths, is not only certain but real knowledge; and not the bare empty vision of vain, insignificant chimeras of the brain; and yet, if we will consider, we shall find that it is only of our own ideas. The mathematician considers the truth and properties belonging to a rectangle or circle, only as they are in idea in his own mind. For it is possible he never found either of them existing mathematically, *i. e.*, precisely true, in his life. But yet the knowledge he has of any truths or properties belonging to a circle, or any other mathematical figure, is nevertheless true and certain even of real things existing; because real things are no farther concerned, nor intended to be meant by any such propositions, than as things really agree to those archetypes in his mind. Is it true of the idea of a triangle, that its three angles are equal to two right ones? It is true also of a triangle wherever it really exists. Whatever other figure exists, that it is not exactly answerable to that idea of a triangle in his mind, is not at all concerned in that proposition. And therefore he is certain all his knowledge concerning such ideas is real knowledge: because, intending things no farther than they agree with those his ideas, he is sure what he knows concerning those figures when they have barely an ideal existence in his mind, will hold true of them also when they have a real existence in matter; his consideration being barely of those figures, which are the same wherever or however they exist.

7. *And of moral.* — And hence it follows that moral knowledge is as capable of real certainty as mathematics. For, certainty being but the perception of the agreement or disagreement of our ideas, and demonstration nothing but the perception of such agreement by the intervention of other ideas or mediums, our moral ideas as well as mathematical being archetypes themselves, and so adequate and complete ideas, all the agreement or disagreement which we shall find in them will produce real knowledge, as well as in mathematical figures.

11. *Ideas of substances have their archetypes without us.* — Thirdly, There is another sort of complex ideas, which being referred to archetypes without us may differ from them, and so

our knowledge about them may come short of being real. Such are our ideas of substances, which consisting of a collection of simple ideas, supposed taken from the works of nature, may yet vary from them, by having more or different ideas united in them than are to be found united in the things themselves: from whence it comes to pass, that they may and often do fail of being exactly conformable to things themselves.

12. *So far as they agree with those, so far our knowledge concerning them is real.* — I say, then, that to have ideas of *substances* which, by being conformable to things, may afford us real knowledge, it is not enough, as in *modes*, to put together such ideas as have no inconsistence, though they did never before so exist; *v. g.*, the ideas of sacrilege or perjury, &c., were as real and true ideas before as after the existence of any such fact. But our ideas of substances, being supposed copies, and referred to archetypes without us, must still be taken from something that does or has existed; they must not consist of ideas put together at the pleasure of our thoughts without any real pattern they were taken from, though we can perceive no inconsistence in such a combination. The reason whereof is, because we knowing not what real constitution it is of substances whereon our simple ideas depend, and which really is the cause of the strict union of some of them one with another, and the exclusion of others; there are very few of them that we can be sure are or are not inconsistent in nature, any farther than experience and sensible observation reach. Herein, therefore, is founded the *reality* of our knowledge concerning *substances* — That all our complex ideas of them must be such, and such only, as are made up of such simple ones as have been discovered to co-exist in nature. And our ideas, being thus true, though not perhaps very exact copies, are yet the subjects of real (as far as we have any) knowledge of them: which, as has been already showed, will not be found to reach very far; but so far as it does, it will still be real knowledge. Whatever ideas we have, the agreement we find they have with others will still be knowledge. If those ideas be abstract, it will be general knowledge. But to make it real concerning substances, the ideas must be taken from the real

existence of things. Whatever simple ideas have been found to co-exist in any substance, these we may with confidence join together again, and so make abstract ideas of substances. For whatever have once had an union in nature, may be united again.

18. *Recapitulation.* — Wherever we perceive the agreement or disagreement of any of our ideas, there is certain knowledge: and wherever we are sure those ideas agree with the reality of things, there is certain real knowledge. Of which agreement of our ideas with the reality of things having here given the marks, I think I have shown wherein it is that *certainty*, *real certainty*, consists. Which, whatever it was to others, was, I confess, to me heretofore one of those *desiderata* which I found great want of.

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GEORGE BERKELEY
(1685–1753)

A TREATISE CONCERNING THE PRINCIPLES OF HUMAN KNOWLEDGE*

1. It is evident to any one who takes a survey of the *objects of human knowledge*, that they are either *ideas* actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; or lastly, *ideas* formed by help of memory and imagination — either compounding, dividing, or barely representing those originally perceived in the aforesaid ways. By sight I have the ideas of light and colours, with their several degrees and variations. By touch I perceive hard and soft, heat and cold, motion and resistance, and of all these more and less either as to quantity or degree. Smelling furnishes me with odours; the palate with tastes; and hearing conveys sounds to the mind in all their variety of tone and composition. And as several of these are observed to accompany each other, they come to be marked by one name, and so to be reputed as one thing. Thus, for example, a certain colour, taste, smell, figure and consistence having being observed to go together, are accounted one distinct thing, signified by the name *apple;* other collections of ideas constitute a stone, a tree, a book, and the like sensible things; which as they are pleasing or disagreeable excite the passions of love, hatred, joy, grief, and so forth.

2. But, besides all that endless variety of ideas or objects of knowledge, there is likewise something which knows or perceives them, and exercises divers operations, as willing, imagining, remembering, about them. This perceiving, active being is what I call *mind, spirit, soul,* or *myself.* By which words I do not denote any one of my ideas, but a thing entirely distinct from

* Dublin, 1710; 2d ed., London, 1734. Reprinted here from the second edition.

them, wherein they exist, or, which is the same thing, whereby they are perceived — for the existence of an idea consists in being perceived.

3. That neither our thoughts, nor passions, nor ideas formed by the imagination, exist without the mind, is what everybody will allow. And to me it is no less evident that the various sensations, or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than in a mind perceiving them. — I think an intuitive knowledge may be obtained of this by any one that shall attend to what is meant by the term *exist*, when applied to sensible things. The table I write on I say exists, that is, I see and feel it; and if I were out of my study I should say it existed — meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. There was an odour, that is, it was smelt; there was a sound, that is, it was heard; a colour or figure, and it was perceived by sight or touch. This is all that I can understand by these and the like expressions. For as to what is said of the absolute existence of unthinking things without any relation to their being perceived, that is to me perfectly unintelligible. Their *esse* is *percipi*, nor is it possible they should have any existence out of the minds or thinking things which perceive them.

4. It is indeed an opinion strangely prevailing amongst men, that houses, mountains, rivers, and in a word all sensible objects, have an existence, natural or real, distinct from their being perceived by the understanding. But, with how great an assurance and acquiescence soever this principle may be entertained in the world, yet whoever shall find in his heart to call it in question may, if I mistake not, perceive it to involve a manifest contradiction. For, what are the fore-mentioned objects but the things we perceive by sense? and what do we perceive besides our own ideas or sensations? and is it not plainly repugnant that any one of these, or any combination of them, should exist unperceived?

5. If we thoroughly examine this tenet it will, perhaps, be

found at bottom to depend on the doctrine of *abstract ideas*. For can there be a nicer strain of abstraction than to distinguish the existence of sensible objects from their being perceived, so as to conceive them existing unperceived? Light and colours, heat and cold, extension and figures — in a word the things we see and feel — what are they but so many sensations, notions, ideas, or impressions on the sense? and is it possible to separate, even in thought, any of these from perception? For my part, I might as easily divide a thing from itself. I may, indeed, divide in my thoughts, or conceive apart from each other, those things which, perhaps, I never perceived by sense so divided. Thus, I imagine the trunk of a human body without the limbs, or conceive the smell of a rose without thinking on the rose itself. So far, I will not deny, I can abstract — if that may properly be called *abstraction* which extends only to the conceiving separately such objects as it is possible may really exist or be actually perceived asunder. But my conceiving or imagining power does not extend beyond the possibility of real existence or perception. Hence, as it is impossible for me to see or feel anything without an actual sensation of that thing, so is it impossible for me to conceive in my thoughts any sensible thing or object distinct from the sensation or perception of it.

6. Some truths there are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, viz., that all the choir of heaven and furniture of the earth, in a word all those bodies which compose the mighty frame of the world, have not any subsistence without a mind, that their *being* is to be perceived or known; that consequently so long as they are not actually perceived by me, or do not exist in my mind or that of any other created spirit, they must either have no existence at all, or else subsist in the mind of some Eternal Spirit — it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit. To be convinced of which, the reader need only reflect, and try to separate in his own thoughts the *being* of a sensible thing from its *being perceived*.

7. From what has been said it is evident there is not any other Substance than *Spirit*, or that which perceives. But, for the fuller demonstration of this point, let it be considered the sensible qualities are colour, figure, motion, smell, taste, &c., *i. e.* the ideas perceived by sense. Now, for an idea to exist in an unperceiving thing is a manifest contradiction, for to have an idea is all one as to perceive; that therefore wherein colour, figure, &c. exist must perceive them; hence it is clear there can be no unthinking substance or *substratum* of those ideas.

8. But, say you, though the ideas themselves do not exist without the mind, yet there may be things like them, whereof they are copies or resemblances, which things exist without the mind in an unthinking substance. I answer, an idea can be like nothing but an idea; a colour or figure can be like nothing but another colour or figure. If we look but never so little into our own thoughts, we shall find it impossible for us to conceive a likeness except only between our ideas. Again, I ask whether those supposed *originals* or external things, of which our ideas are the pictures or representations, be themselves perceivable or no? If they are, then *they* are ideas and we have gained our point; but if you say they are not, I appeal to any one whether it be sense to assert a colour is like something which is invisible; hard or soft, like something which is intangible; and so of the rest.

9. Some there are who make a distinction betwixt *primary* and *secondary* qualities.* By the former they mean extension, figure, motion, rest, solidity or impenetrability, and number; by the latter they denote all other sensible qualities, as colours, sounds, tastes, and so forth. The ideas we have of these they acknowledge not to be the resemblances of anything existing without the mind, or unperceived, but they will have our ideas of the primary qualities to be patterns or images of things which exist without the mind, in an unthinking substance which they call *Matter*. By Matter, therefore, we are to understand an inert, senseless substance, in which extension, figure, and motion do

* See Locke's Essay, bk. ii, ch. viii, *supra*, pp. 238–239.

actually subsist. But it is evident, from what we have already shewn, that extension, figure, and motion are only ideas existing in the mind, and that an idea can be like nothing but another idea, and that consequently neither they nor their archetypes can exist in an unperceiving substance. Hence, it is plain that the very notion of what is called *Matter* or *corporeal substance*, involves a contradiction in it.

10. They who assert that figure, motion, and the rest of the primary or original qualities do exist without the mind in unthinking substances, do at the same time acknowledge that colours, sounds, heat, cold, and such like secondary qualities, do not — which they tell us are sensations existing in the mind alone, that depend on and are occasioned by the different size, texture, and motion of the minute particles of matter. This they take for an undoubted truth, which they can demonstrate beyond all exception. Now, if it be certain that those original qualities are inseparably united with the other sensible qualities, and not, even in thought, capable of being abstracted from them, it plainly follows that they exist only in the mind. But I desire any one to reflect and try whether he can, by any abstraction of thought, conceive the extension and motion of a body without all other sensible qualities. For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moving, but I must withal give it some colour or other sensible quality which is acknowledged to exist only in the mind. In short, extension, figure, and motion, abstracted from all other qualities, are inconceivable. Where therefore the other sensible qualities are, there must these be also, to wit, in the mind and nowhere else.

11. Again, *great* and *small*, *swift* and *slow*, are allowed to exist nowhere without the mind, being entirely relative, and changing as the frame or position of the organs of sense varies. The extension therefore which exists without the mind is neither great nor small, the motion neither swift nor slow, that is, they are nothing at all. But, say you, they are extension in general, and motion in general: thus we see how much the tenet of extended movable substances existing without the mind depends on the

strange doctrine of *abstract ideas.* And here I cannot but remark how nearly the vague and indeterminate description of Matter or corporeal substance, which the modern philosophers are run into by their own principles, resembles that antiquated and so much ridiculed notion of *materia prima*, to be met with in Aristotle and his followers. Without extension solidity cannot be conceived; since therefore it has been shewn that extension exists not in an unthinking substance, the same must also be true of solidity.

12. That *number* is entirely the creature of the mind, even though the other qualities be allowed to exist without, will be evident to whoever considers that the same thing bears a different denomination of number as the mind views it with different respects. Thus, the same extension is one, or three, or thirty-six, according as the mind considers it with reference to a yard, a foot, or an inch. Number is so visibly relative, and dependent on men's understanding, that it is strange to think how any one should give it an absolute existence without the mind. We say one book, one page, one line, &c.; all these are equally units, though some contain several of the others. And in each instance, it is plain, the unit relates to some particular combination of ideas arbitrarily put together by the mind.

13. Unity I know some will have to be a simple or uncompounded idea, accompanying all other ideas into the mind. That I have any such idea answering the word *unity* I do not find; and if I had, methinks I could not miss finding it: on the contrary, it should be the most familiar to my understanding, since it is said to accompany all other ideas, and to be perceived by all the ways of sensation and reflexion. To say no more, it is an *abstract idea.*

14. I shall farther add, that, after the same manner as modern philosophers prove certain sensible qualities to have no existence in Matter, or without the mind, the same thing may be likewise proved of all other sensible qualities whatsoever. Thus, for instance, it is said that heat and cold are affections only of the mind, and not at all patterns of real beings, existing in the corporeal substances which excite them, for that the same body

which appears cold to one hand seems warm to another. Now, why may we not as well argue that figure and extension are not patterns or resemblances of qualities existing in Matter, because to the same eye at different stations, or eyes of a different texture at the same station, they appear various, and cannot therefore be the images of anything settled and determinate without the mind? Again, it is proved that sweetness is not really in the sapid thing, because the thing remaining unaltered the sweetness is changed into bitter, as in case of a fever or otherwise vitiated palate. Is it not as reasonable to say that motion is not without the mind, since if the succession of ideas in the mind become swifter, the motion, it is acknowledged, shall appear slower without any alteration in any external object?

15. In short, let any one consider those arguments which are thought manifestly to prove that colours and taste exist only in the mind, and he shall find they may with equal force be brought to prove the same thing of extension, figure, and motion. Though it must be confessed this method of arguing does not so much prove that there is no extension or colour in an outward object, as that we do not know by sense which is the true extension or colour of the object. But the arguments foregoing plainly shew it to be impossible that any colour or extension at all, or other sensible quality whatsoever, should exist in an unthinking subject without the mind, or in truth, that there should be any such thing as an outward object.

16. But let us examine a little the received opinion. — It is said extension is a mode or accident of Matter, and that Matter is the *substratum* that supports it. Now I desire that you would explain to me what is meant by Matter's *supporting* extension. Say you, I have no idea of Matter and therefore cannot explain it. I answer, though you have no positive, yet, if you have any meaning at all, you must at least have a relative idea of Matter; though you know not what it is, yet you must be supposed to know what relation it bears to accidents, and what is meant by its supporting them. It is evident *support* cannot here be taken in its usual or literal sense — as when we say that pillars support a building; in what sense therefore must it be taken?

17. If we inquire into what the most accurate philosophers declare themselves to mean by *material substance*, we shall find them acknowledge they have no other meaning annexed to those sounds but the idea of Being in general, together with the relative notion of its supporting accidents. The general idea of Being appeareth to me the most abstract and incomprehensible of all other; and as for its supporting accidents, this, as we have just now observed, cannot be understood in the common sense of those words; it must therefore be taken in some other sense, but what that is they do not explain. So that when I consider the two parts or branches which make the signification of the words *material substance*, I am convinced there is no distinct meaning annexed to them. But why should we trouble ourselves any farther, in discussing this material *substratum* or support of figure and motion, and other sensible qualities? Does it not suppose they have an existence without the mind? And is not this a direct repugnancy, and altogether inconceivable?

18. But, though it were possible that solid, figured, movable substances may exist without the mind, corresponding to the ideas we have of bodies, yet how is it possible for us to know this? Either we must know it by sense or by reason. As for our senses, by them we have the knowledge only of our sensations, ideas, or those things that are immediately perceived by sense, call them what you will: but they do not inform us that things exist without the mind, or unperceived, like to those which are perceived. This the materialists themselves acknowledge. It remains therefore that if we have any knowledge at all of external things, it must be by reason, inferring their existence from what is immediately perceived by sense. But what reason can induce us to believe the existence of bodies without the mind, from what we perceive, since the very patrons of Matter themselves do not pretend there is any necessary connexion betwixt them and our ideas? I say it is granted on all hands — and what happens in dreams, frenzies, and the like, puts it beyond dispute — that it is possible we might be affected with all the ideas we have now, though there were no bodies existing without resembling them. Hence, it is evident the supposition of external bodies is not neces-

sary for the producing our ideas; since it is granted they are produced sometimes, and might possibly be produced always in the same order, we see them in at present, without their concurrence.

19. But, though we might possibly have all our sensations without them, yet perhaps it may be thought easier to conceive and explain the manner of their production, by supposing external bodies in their likeness rather than otherwise; and so it might be at least probable that there are such things as bodies that excite their ideas in our minds. But neither can this be said; for, though we give the materialists their external bodies, they by their own confession are never the nearer knowing how our ideas are produced; since they own themselves unable to comprehend in what manner body can act upon spirit, or how it is possible it should imprint any idea in the mind. Hence it is evident the production of ideas or sensations in our minds can be no reason why we should suppose Matter or corporeal substances, since that is acknowledged to remain equally inexplicable with or without this supposition. If therefore it were possible for bodies to exist without the mind, yet to hold they do so must needs be a very precarious opinion; since it is to suppose, without any reason at all, that God has created innumerable beings that are entirely useless, and serve to no manner of purpose.

20. In short, if there were external bodies, it is impossible we should ever come to know it; and if there were not, we might have the very same reasons to think there were that we have now. Suppose — what no one can deny possible — an intelligence without the help of external bodies, to be affected with the same train of sensations or ideas that you are, imprinted in the same order and with like vividness in his mind. I ask whether that intelligence hath not all the reason to believe the existence of corporeal substances, represented by his ideas, and exciting them in his mind, that you can possibly have for believing the same thing? Of this there can be no question — which one consideration were enough to make any reasonable person suspect the strength of whatever arguments he may think himself to have, for the existence of bodies without the mind.

21. Were it necessary to add any farther proof against the

existence of Matter after what has been said, I could instance several of those errors and difficulties (not to mention impieties) which have sprung from that tenet. It has occasioned numberless controversies and disputes in philosophy, and not a few of far greater moment in religion. But I shall not enter into the detail of them in this place, as well because I think arguments *a posteriori* are unnecessary for confirming what has been, if I mistake not, sufficiently demonstrated *a priori*, as because I shall hereafter find occasion to speak somewhat of them.

22. I am afraid I have given cause to think I am needlessly prolix in handling this subject. For, to what purpose is it to dilate on that which may be demonstrated with the utmost evidence in a line or two, to any one that is capable of the least reflexion? It is but looking into your own thoughts, and so trying whether you can conceive it possible for a sound, or figure, or motion, or colour to exist without the mind or unperceived. This easy trial may perhaps make you see that what you contend for is a downright contradiction. Insomuch that I am content to put the whole upon this issue: — If you can but conceive it possible for one extended movable substance, or, in general, for any one idea, or anything like an idea, to exist otherwise than in a mind perceiving it, I shall readily give up the cause. And, as for all that compages of external bodies you contend for, I shall grant you its existence, though you cannot either give me any reason why you believe it exists, or assign any use to it when it is supposed to exist. I say, the bare possibility of your opinions being true shall pass for an argument that it is so.

23. But, say you, surely there is nothing easier than for me to imagine trees, for instance, in a park, or books existing in a closet, and nobody by to perceive them. I answer, you may so, there is no difficulty in it; but what is all this, I beseech you, more than framing in your mind certain ideas which you call books and trees, and at the same time omitting to frame the idea of any one that may perceive them? But do not you yourself perceive or think of them all the while? This therefore is nothing to the purpose: it only shews you have the power of imagining

or forming ideas in your mind: but it does not shew that you can conceive it possible the objects of your thought may exist without the mind. To make out this, it is necessary that you conceive them existing unconceived or unthought of, which is a manifest repugnancy. When we do our utmost to conceive the existence of external bodies, we are all the while only contemplating our own ideas. But the mind, taking no notice of itself, is deluded to think it can and does conceive bodies existing unthought of or without the mind, though at the same time they are apprehended by or exist in itself. A little attention will discover to any one the truth and evidence of what is here said, and make it unnecessary to insist on any other proofs against the existence of *material substance.*

24. It is very obvious, upon the least inquiry into our own thoughts, to know whether it be possible for us to understand what is meant by the *absolute existence of sensible objects in themselves, or without the mind.* To me it is evident those words mark out either a direct contradiction, or else nothing at all. And to convince others of this, I know no readier or fairer way than to entreat they would calmly attend to their own thoughts; and if by this attention the emptiness or repugnancy of those expressions does appear, surely nothing more is requisite for their conviction. It is on this therefore that I insist, to wit, that the absolute existence of unthinking things are words without a meaning, or which include a contradiction. This is what I repeat and inculcate, and earnestly recommend to the attentive thoughts of the reader.

25. All our ideas, sensations, notions, or the things which we perceive, by whatsoever names they may be distinguished, are visibly inactive — there is nothing of power or agency included in them. So that one idea or object of thought cannot produce or make any alteration in another. To be satisfied of the truth of this, there is nothing else requisite but a bare observation of our ideas. For, since they and every part of them exist only in the mind, it follows that there is nothing in them but what is perceived: but who ever shall attend to his ideas, whether of

sense or reflexion, will not perceive in them any power or activity; there is, therefore, no such thing contained in them. A little attention will discover to us that the very being of an idea implies passiveness and inertness in it, insomuch that it is impossible for an idea to do anything, or, strictly speaking, to be the cause of anything: neither can it be the resemblance or pattern of any active being, as is evident from sect. 8. Whence it plainly follows that extension, figure, and motion cannot be the cause of our sensations. To say, therefore, that these are the effects of powers resulting from the configuration, number, motion, and size of corpuscles, must certainly be false.

26. We perceive a continual succession of ideas; some are anew excited, others are changed or totally disappear. There is therefore some cause of these ideas, whereon they depend, and which produces and changes them. That this cause cannot be any quality, or idea, or combination of ideas, is clear from the preceding section. It must therefore be a substance; but it has been shewn that there is no corporeal or material substance: it remains therefore that the cause of ideas is an incorporeal active substance or Spirit.

27. A Spirit is one simple, undivided, active being — as it perceives ideas it is called the *understanding*, and as it produces or otherwise operates about them it is called the *will*. Hence there can be no idea formed of a soul or spirit; for, all ideas whatever, being passive and inert (*vid.* sect. 25), cannot represent unto us, by way of image or likeness, that which acts. A little attention will make it plain to any one that to have an idea which shall be *like* that active principle of motion and change of ideas is absolutely impossible. Such is the nature of *Spirit*, or that which acts, that it cannot be of itself perceived, but only by the effects which it produceth. If any man shall doubt of the truth of what is here delivered, let him but reflect and try if he can frame the idea of any power or active being; and whether he has ideas of two principal powers, marked by the names *will* and *understanding*, distinct from each other, as well as from a third idea of Substance or Being in general, with a relative notion of its supporting or being the subject of the aforesaid powers —

which is signified by the name *soul* or *spirit*. This is what some hold; but, so far as I can see, the words *will*, *soul*, *spirit*, do not stand for different ideas, or, in truth, for any idea at all, but for something which is very different from ideas, and which, being an agent, cannot be like unto, or represented by, any idea whatsoever. Though it must be owned at the same time that we have some *notion* of soul, spirit, and the operations of the mind; such as willing, loving, hating — inasmuch as we know or understand the meaning of these words.

28. I find I can excite ideas in my mind at pleasure, and vary and shift the scene as oft as I think fit. It is no more than willing. and straightway this or that idea arises in my fancy; and by the same power it is obliterated and makes way for another. This making and unmaking of ideas doth very properly denominate the mind active. Thus much is certain and grounded on experience: but when we talk of unthinking agents or of exciting ideas exclusive of volition, we only amuse ourselves with words.

29. But, whatever power I may have over my own thoughts, I find the ideas actually perceived by Sense have not a like dependence on my will. When in broad daylight I open my eyes, it is not in my power to choose whether I shall see or no, or to determine what particular objects shall present themselves to my view; and so likewise as to the hearing and other senses; the ideas imprinted on them are not creatures of my will. There is therefore some *other* Will or Spirit that produces them.

30. The ideas of Sense are more strong, lively, and distinct than those of the imagination; they have likewise a steadiness, order, and coherence, and are not excited at random, as those which are the effects of human wills often are, but in a regular train or series — the admirable connexion whereof sufficiently testifies the wisdom and benevolence of its Author. Now the set rules or established methods wherein the Mind we depend on excites in us the ideas of sense, are called the *laws of nature;* and these we learn by experience, which teaches us that such and such ideas are attended with such and such other ideas, in the ordinary course of things.

31. This gives us a sort of foresight which enables us to regu-

late our actions for the benefit of life. And without this we should be eternally at a loss; we could not know how to act anything that might procure us the least pleasure, or remove the least pain of sense. That food nourishes, sleep refreshes, and fire warms us; that to sow in the seed-time is the way to reap in the harvest; and in general that to obtain such or such ends, such or such means are conducive — all this we know, not by discovering any necessary connexion between our ideas, but only by the observation of the settled laws of nature, without which we should be all in uncertainty and confusion, and a grown man no more know how to manage himself in the affairs of life than an infant just born.

32. And yet this consistent uniform working, which so evidently displays the goodness and wisdom of that Governing Spirit whose Will constitutes the laws of nature, is so far from leading our thoughts to Him, that it rather sends them wandering after second causes. For, when we perceive certain ideas of Sense constantly followed by other ideas, and we know this is not of our own doing, we forthwith attribute power and agency to the ideas themselves, and make one the cause of another, than which nothing can be more absurd and unintelligible. Thus, for example, having observed that when we perceive by sight a certain round luminous figure we at the same time perceive by touch the idea or sensation called heat, we do from thence conclude the sun to be the cause of heat. And in like manner perceiving the motion and collision of bodies to be attended with sound, we are inclined to think the latter the effect of the former.

33. The ideas imprinted on the Senses by the Author of nature are called *real things*: and those excited in the Imagination being less regular, vivid, and constant, are more properly termed *ideas*, or *images of things*, which they copy and represent. But then our sensations, be they never so vivid and distinct, are nevertheless ideas, that is, they exist in the mind, or are perceived by it, as truly as the ideas of its own framing. The ideas of Sense are allowed to have more reality in them, that is, to be more strong, orderly, and coherent than the creatures of the mind; but this is no argument that they exist without the mind. They are also

less dependent on the spirit, or thinking substance which perceives them, in that they are excited by the will of another and more powerful Spirit; yet still they are *ideas*, and certainly no *idea*, whether faint or strong, can exist otherwise than in a mind perceiving it.

34. Before we proceed any farther it is necessary we spend some time in answering Objections which may probably be made against the principles we have hitherto laid down. In doing of which, if I seem too prolix to those of quick apprehensions, I desire I may be excused, since all men do not equally apprehend things of this nature, and I am willing to be understood by every one.

First, then, it will be objected that by the foregoing principles all that is real and substantial in nature is banished out of the world, and instead thereof a chimerical scheme of *ideas* takes place. All things that exist exist only in the mind, that is, they are purely notional. What therefore becomes of the sun, moon, and stars? What must we think of houses, rivers, mountains, trees, stones; nay, even of our own bodies? Are all these but so many chimeras and illusions of the fancy? To all of which, and whatever else of the same sort may be objected, I answer, that by the Principles premised we are not deprived of any one thing in nature. Whatever we see, feel, hear, or anywise conceive or understand, remains as secure as ever, and is as real as ever. There is a *rerum natura*, and the distinction between realities and chimeras retains its full force. This is evident from sect. 29, 30, and 33, where we have shewn what is meant by *real things*, in opposition to *chimeras* or ideas of our own framing; but then they both equally exist in the mind, and in that sense they are alike *ideas*.

35. I do not argue against the existence of any one thing that we can apprehend either by sense or reflexion. That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence we deny is that which *philosophers* call Matter or corporeal substance. And in doing of this there is no damage

done to the rest of mankind, who, I dare say, will never miss it. The Atheist indeed will want the colour of an empty name to support his impiety; and the Philosophers may possibly find they have lost a great handle for trifling and disputation.

29 37. It will be urged that thus much at least is true, to wit, that we take away all corporeal substances. To this my answer is, that if the word *substance* be taken in the vulgar sense, for a combination of sensible qualities, such as extension, solidity, weight, and the like — this we cannot be accused of taking away; but if it be taken in a philosophic sense, for the support of accidents or qualities without the mind — then indeed I acknowledge that we take it away, if one may be said to take away that which never had any existence, not even in the imagination.

38. But after all, say you, it sounds very harsh to say we eat and drink ideas, and are clothed with ideas. I acknowledge it does so — the word *idea* not being used in common discourse to signify the several combinations of sensible qualities which are called *things;* and it is certain that any expression which varies from the familiar use of language will seem harsh and ridiculous. But this doth not concern the truth of the proposition, which in other words is no more than to say, we are fed and clothed with those things which we perceive immediately by our senses. The hardness or softness, the colour, taste, warmth, figure, or suchlike qualities, which, combined together, constitute the several sorts of victuals and apparel, have been shewn to exist only in the mind that perceives them; and this is all that is meant by calling them *ideas;* which word if it was as ordinarily used as *thing*, would sound no harsher nor more ridiculous than it. I am not for disputing about the propriety, but the truth of the expression. If therefore you agree with me that we eat and drink and are clad with the immediate objects of sense, which cannot exist unperceived or without the mind, I shall readily grant it is more proper or conformable to custom that they should be called *things* rather than *ideas*.

30 39. If it be demanded why I make use of the word *idea*, and do not rather in compliance with custom call them *things;* I

answer, I do it for two reasons:—first, because the term *thing*, in contradistinction to *idea*, is generally supposed to denote somewhat existing without the mind; secondly, because *thing* hath a more comprehensive signification than *idea*, including spirit or thinking things as well as ideas. Since therefore the objects of sense exist only in the mind, and are withal thoughtless and inactive, I chose to mark them by the word *idea*, which implies those properties.

41. *Secondly*, it will be objected that there is a great difference betwixt real fire for instance, and the idea of fire, betwixt dreaming or imagining oneself burnt, and actually being so. This and the like may be urged in opposition to our tenets. To all which the answer is evident from what hath been already said; and I shall only add in this place, that if real fire be very different from the idea of fire, so also is the real pain that it occasions very different from the idea of the same pain, and yet nobody will pretend that real pain either is, or can possibly be, in an unperceiving thing, or without the mind, any more than its idea.

42. *Thirdly*, it will be objected that we see things actually without or at a distance from us, and which consequently do not exist in the mind; it being absurd that those things which are seen at the distance of several miles should be as near to us as our own thoughts. In answer to this, I desire it may be considered that in a dream we do oft perceive things as existing at a great distance off, and yet for all that, those things are acknowledged to have their existence only in the mind.

43. But, for the fuller clearing of this point, it may be worth while to consider *how* it is that we perceive distance and things placed at a distance by sight. For, that we should in truth see external space, and bodies actually existing in it — some nearer, others farther off, seems to carry with it some opposition to what hath been said of their existing nowhere without the mind. The consideration of this difficulty it was that gave birth to my *Essay towards a New Theory of Vision*, which was published not long since, wherein it is shewn that distance or out

ness is neither immediately of itself perceived by sight, nor yet apprehended or judged of by lines and angles, or anything that hath a necessary connexion with it; but that it is only suggested to our thoughts by certain visible ideas and sensations attending vision, which in their own nature have no manner of similitude or relation either with distance or things placed at a distance; but by a connexion taught us by experience, they come to signify and suggest them to us, after the same manner that words of any language suggest the ideas they are made to stand for; insomuch that a man born blind and afterwards made to see, would not, at first sight, think the things he saw to be without his mind, or at any distance from him. See sect. 41 of the forementioned treatise.

45. *Fourthly*, it will be objected that from the foregoing principles it follows things are every moment annihilated and created anew. The objects of sense exist only when they are perceived; the trees therefore are in the garden, or the chairs in the parlour, no longer than while there is somebody by to perceive them. Upon shutting my eyes all the furniture in the room is reduced to nothing, and barely upon opening them it is again created. In answer to all which, I refer the reader to what has been said in sect. 3, 4, &c., and desire he will consider whether he means anything by the actual existence of an idea distinct from its being perceived. For my part, after the nicest inquiry I could make, I am not able to discover that anything else is meant by those words; and I once more entreat the reader to sound his own thoughts, and not suffer himself to be imposed on by words. If he can conceive it possible either for his ideas or their archetypes to exist without being perceived, then I give up the cause; but if he cannot, he will acknowledge it is unreasonable for him to stand up in defence of he knows not what, and pretend to charge on me as an absurdity the not assenting to those propositions which at bottom have no meaning in them.

48. But, after all, if we consider it, the objection proposed in sect. 45 will not be found reasonably charged on the principles we have premised, so as in truth to make any objection at all

against our notions. For, though we hold indeed the objects of sense to be nothing else but ideas which cannot exist unperceived; yet we may not hence conclude they have no existence except only while they are perceived by us, since there may be some other spirit that perceives them though we do not. Wherever bodies are said to have no existence without the mind, I would not be understood to mean this or that particular mind, but all minds whatsoever. It does not therefore follow from the foregoing Principles that bodies are annihilated and created every moment, or exist not at all during the intervals between *our* perception of them.

35 49. *Fifthly*, it may perhaps be objected that if extension and figure exist only in the mind, it follows that the mind is extended and figured; since extension is a mode or attribute which (to speak with the schools) is predicated of the *subject* in which it exists. I answer, those qualities are in the mind only as they are perceived by it — that is, not by way of *mode* or *attribute*, but only by way of *idea;* and it no more follows the soul or mind is extended, because extension exists in it alone, than it does that it is red or blue, because those colours are on all hands acknowledged to exist in it, and nowhere else. . . .

36 50. *Sixthly*, you will say there have been a great many things explained by matter and motion; take away these and you destroy the whole corpuscular philosophy, and undermine those mechanical principles which have been applied with so much success to account for the phenomena. In short, whatever advances have been made, either by ancient or modern philosophers, in the study of nature do all proceed on the supposition that corporeal substance or Matter doth really exist. To this I answer that there is not any one phenomenon explained on that supposition which may not as well be explained without it, as might easily be made appear by an induction of particulars. To explain the phenomena, is all one as to shew why, upon such and such occasions, we are affected with such and such ideas. But how Matter should operate on a Spirit, or produce any idea in it, is

what no philosopher will pretend to explain; it is therefore evident there can be no use of Matter in natural philosophy. Besides, they who attempt to account for things do it not by corporeal substance, but by figure, motion, and other qualities, which are in truth no more than mere ideas, and therefore cannot be the cause of anything, as hath been already shewn. See sect. 25.

51. *Seventhly*, it will upon this be demanded whether it does not seem absurd to take away natural causes, and ascribe everything to the immediate operation of Spirits? We must no longer say upon these principles that fire heats, or water cools, but that a Spirit heats, and so forth. Would not a man be deservedly laughed at, who should talk after this manner? I answer, he would so; in such things we ought to "think with the learned, and speak with the vulgar." They who to demonstration are convinced of the truth of the Copernican system do nevertheless say "the sun rises," "the sun sets," or "comes to the meridian;" and if they affected a contrary style in common talk it would without doubt appear very ridiculous. A little reflexion on what is here said will make it manifest that the common use of language would receive no manner of alteration or disturbance from the admission of our tenets.

54. In the *eighth* place, the universal concurrent assent of mankind may be thought by some an invincible argument in behalf of Matter, or the existence of external things. Must we suppose the whole world to be mistaken? And if so, what cause can be assigned of so widespread and predominant an error? I answer, first, that, upon a narrow inquiry, it will not perhaps be found so many as is imagined do really believe the existence of Matter or things without the mind. Strictly speaking, to believe that which involves a contradiction, or has no meaning in it, is impossible; and whether the foregoing expressions are not of that sort, I refer it to the impartial examination of the reader In one sense, indeed, men may be said to believe that Matter exists; that is, they act as if the immediate cause of their sensa-

tions, which affects them every moment, and is so nearly present to them, were some senseless unthinking being. But, that they should clearly apprehend any meaning marked by those words, and form thereof a settled speculative opinion, is what I am not able to conceive.

55. But secondly, though we should grant a notion to be never so universally and steadfastly adhered to, yet this is weak argument of its truth to whoever considers what a vast number of prejudices and false opinions are everywhere embraced with the utmost tenaciousness, by the unreflecting (which are the far greater) part of mankind. There was a time when the antipodes and motion of the earth were looked upon as monstrous absurdities even by men of learning: and if it be considered what a small proportion they bear to the rest of mankind, we shall find that at this day those notions have gained but a very inconsiderable footing in the world.

56. But it is demanded that we assign a cause of this prejudice, and account for its obtaining in the world. To this I answer, that men knowing they perceived several ideas, whereof they themselves were not the authors — as not being excited from within nor depending on the operation of their wills — this made them maintain those ideas, or objects of perception had an existence independent of and without the mind, without ever dreaming that a contradiction was involved in those words. But, philosophers having plainly seen that the immediate objects of perception do not exist without the mind, they in some degree corrected the mistake of the vulgar; but at the same time ran into another which seems no less absurd, to wit, that there are certain objects really existing without the mind, or having a subsistence distinct from being perceived, of which our ideas are only images or resemblances, imprinted by those objects on the mind. And this notion of the philosophers owes its origin to the same cause with the former, namely, their being conscious that they were not the authors of their own sensations, which they evidently knew were imprinted from without, and which

therefore must have some cause distinct from the minds on which they are imprinted.

58. *Tenthly*, it will be objected that the notions we advance are inconsistent with several sound truths in philosophy and mathematics. For example, the motion of the earth is now universally admitted by astronomers as a truth grounded on the clearest and most convincing reasons. But, on the foregoing principles, there can be no such thing. For motion being only an idea, it follows that if it be not perceived it exists not; but the motion of the earth is not perceived by sense. I answer, that tenet, if rightly understood, will be found to agree with the principles we have premised; for, the question whether the earth moves or no amounts in reality to no more than this, to wit, whether we have reason to conclude, from what has been observed by astronomers, that if we were placed in such and such circumstances, and such or such a position and distance both from the earth and sun, we should perceive the former to move among the choir of the planets, and appearing in all respects like one of them; and this, by the established rules of nature which we have no reason to mistrust, is reasonably collected from the phenomena.

60. In the *eleventh* place, it will be demanded to what purpose serves that curious organization of plants, and the animal mechanism in the parts of animals. Might not vegetables grow, and shoot forth leaves and blossoms, and animals perform all their motions as well without as with all that variety of internal parts so elegantly contrived and put together; which, being ideas, have nothing powerful or operative in them, nor have any necessary connexion with the effects ascribed to them? If it be a Spirit that immediately produces every effect by a *fiat* or act of his will, we must think all that is fine and artificial in the works, whether of man or nature, to be made in vain. By this doctrine, though an artist has made the spring and wheels, and every movement of a watch, and adjusted them in such a manner as he knew would produce the motions he designed, yet he must think all

this done to no purpose, and that it is an Intelligence which directs the index, and points to the hour of the day. If so, why may not the Intelligence do it, without his being at the pains of making the movements and putting them together? Why does not an empty case serve as well as another? And how comes it to pass that whenever there is any fault in the going of a watch, there is some corresponding disorder to be found in the movements, which being mended by a skilful hand all is right again? The like may be said of all the clockwork of nature, great part whereof is so wonderfully fine and subtle as scarce to be discerned by the best microscope. In short, it will be asked, how, upon our Principles, any tolerable account can be given, or any final cause assigned of an innumerable multitude of bodies and machines, framed with the most exquisite art, which in the common philosophy have very apposite uses assigned them, and serve to explain abundance of phenomena?

61. To all which I answer, first, that though there were some difficulties relating to the administration of Providence, and the uses by it assigned to the several parts of nature, which I could not solve by the foregoing principles, yet this objection could be of small weight against the truth and certainty of those things which may be proved *a priori*, with the utmost evidence and rigor of demonstration. Secondly, but neither are the received principles free from the like difficulties; for, it may still be demanded to what end God should take those roundabout methods of effecting things by instruments and machines, which no one can deny might have been effected by the mere command of His will without all that apparatus. Nay, if we narrowly consider it, we shall find the objection may be retorted with greater force on those who hold the existence of those machines without the mind; for it has been made evident that solidity, bulk, figure, motion, and the like have no *activity* or *efficacy* in them, so as to be capable of producing any one effect in nature. See sect. 25. Whoever therefore supposes them to exist (allowing the supposition possible) when they are not perceived does it manifestly to no purpose; since the only use that is assigned to them, as they exist unperceived, is that they produce those per-

ceivable effects which in truth cannot be ascribed to anything but Spirit.

62. But, to come nigher the difficulty, it must be observed that though the fabrication of all those parts and organs be not absolutely necessary to the producing any effect, yet it is necessary to the producing of things in a constant regular way according to the laws of nature. There are certain general laws that run through the whole chain of natural effects: these are learned by the observation and study of nature, and are by men applied as well to the framing artificial things for the use and ornament of life as to the explaining various phenomena — which explication consists only in shewing the conformity any particular phenomenon hath to the general laws of nature, or, which is the same thing, in discovering the *uniformity* there is in the production of natural effects; as will be evident to whoever shall attend to the several instances wherein philosophers pretend to account for appearances. That there is a great and conspicuous *use* in these regular constant methods of working observed by the Supreme Agent hath been shewn in sect. 31. And it is no less visible that a particular size, figure, motion, and disposition of parts are necessary, though not absolutely to the producing any effect, yet to the producing it according to the standing mechanical laws of nature. Thus, for instance, it cannot be denied that God, or the Intelligence that sustains and rules the ordinary course of things, might, if He were minded to produce a miracle, cause all the motions on the dial-plate of a watch, though nobody had ever made the movements and put them in it. But yet, if He will act agreeably to the rules of mechanism, by Him for wise ends established and maintained in the creation, it is necessary that those actions of the watchmaker, whereby he makes the movements and rightly adjusts them, precede the production of the aforesaid motions; as also that any disorder in them be attended with the perception of some corresponding disorder in the movements, which being once corrected all is right again. . . .

67. In the *twelfth* place, it may perhaps be objected that — though it be clear from what has been said that there can be

no such thing as an inert, senseless, extended, solid, figured, movable substance existing without the mind, such as philosophers describe Matter; yet, if any man shall leave out of his idea of *Matter* the positive ideas of extension, figure, solidity, and motion, and say that he means only by that word an inert, senseless substance, that exists without the mind or unperceived, which is the occasion of our ideas, or at the presence whereof God is pleased to excite ideas in us—it doth not appear but that Matter taken in this sense may possibly exist. In answer to which I say, first, that it seems no less absurd to suppose a substance without accidents, than it is to suppose accidents without a substance. But secondly, though we should grant this unknown substance may possibly exist, yet where can it be supposed to be? That it exists not in the mind is agreed; and that it exists not in place is no less certain — since all place or extension exists only in the mind, as hath been already proved. It remains therefore that it exists nowhere at all.

70. You will perhaps say that Matter, though it be not perceived by us, is nevertheless perceived by God, to whom it is the occasion of exciting ideas in our minds. For, say you, since we observe our sensations to be imprinted in an orderly and constant manner, it is but reasonable to suppose that there are certain constant and regular occasions of their being produced. That is to say, that there are certain permanent and distinct parcels of Matter, corresponding to our ideas, which, though they do not excite them in our minds, or anywise immediately affect us, as being altogether passive and unperceivable to us, they are nevertheless to God, by whom they *are* perceived, as it were so many occasions to remind Him when and what ideas to imprint on our minds—that so things may go on in a constant uniform manner.

71. In answer to this, I observe that, as the notion of Matter is here stated, the question is no longer concerning the existence of a thing distinct from *Spirit* and *idea*, from perceiving and being perceived; but whether there are not certain ideas of I know not what sort, in the mind of God, which are so many marks or notes that direct Him how to produce sensations in our minds in a constant and regular method — much after the same manner

as a musician is directed by the notes of music to produce that harmonious strain and composition of sound which is called a tune, though they who hear the music do not perceive the notes, and may be entirely ignorant of them. But, this notion of Matter seems too extravagant to deserve a confutation. Besides, it is in effect no objection against what we have advanced, viz. that there is no senseless unperceived substance.

72. If we follow the light of reason, we shall, from the constant uniform method of our sensations, collect the goodness and wisdom of the Spirit who excites them in our minds; but this is all that I can see reasonably concluded from thence. To me, I say, it is evident that the being of a Spirit infinitely wise, good, and powerful is abundantly sufficient to explain all the appearances of nature. But, as for *inert, senseless Matter*, nothing that I perceive has any the least connexion with it, or leads to the thoughts of it. And I would fain see any one explain any the meanest phenomenon in nature by it, or shew any manner of reason, though in the lowest rank of probability, that he can have for its existence, or even make any tolerable sense or meaning of that supposition. For, as to its being an occasion, we have, I think, evidently shewn that with regard to us it is no occasion. It remains therefore that it must be, if at all, the occasion to God of exciting ideas in us; and what this amounts to we have just now seen.

73. It is worth while to reflect a little on the motives which induced men to suppose the existence of *material substance;* that so having observed the gradual ceasing and expiration of those motives or reasons, we may proportionably withdraw the assent that was grounded on them. First, therefore, it was thought that colour, figure, motion, and the rest of the sensible qualities or accidents, did really exist without the mind; and for this reason it seemed needful to suppose some unthinking *substratum* or substance wherein they did exist, since they could not be conceived to exist by themselves. Afterwards, in process of time, men being convinced that colours, sounds, and the rest of the sensible, secondary qualities had no existence without the mind, they stripped this *substratum* or material substance of those

qualities, leaving only the primary ones, figure, motion, and such-like, which they still conceived to exist without the mind, and consequently to stand in need of a material support. But, it having been shewn that none even of these can possibly exist otherwise than in a Spirit or Mind which perceives them, it follows that we have no longer any reason to suppose the being of Matter; nay, that it is utterly impossible there should be any such thing, so long as that word is taken to denote an *unthinking substratum* of qualities or accidents wherein they exist without the mind.

85. Having done with the Objections, which I endeavoured to propose in the clearest light, and gave them all the force and weight I could, we proceed in the next place to take a view of our tenets in their Consequences. Some of these appear at first sight — as that several difficult and obscure questions, on which abundance of speculation has been thrown away, are entirely banished from philosophy. "Whether corporeal substance can think," "whether Matter be infinitely divisible," and "how it operates on spirit" — these and the like inquiries have given infinite amusement to philosophers in all ages; but, depending on the existence of Matter, they have no longer any place in our principles. Many other advantages there are, as well with regard to religion as the sciences, which it is easy for any one to deduce from what has been premised; but this will appear more plainly in the sequel.

86. From the Principles we have laid down it follows Human Knowledge may naturally be reduced to two heads — that of *ideas* and that of *spirits*. Of each of these I shall treat in order.

And *first* as to ideas or unthinking things. Our knowledge of these has been very much obscured and confounded, and we have been led into very dangerous errors, by supposing a two-fold existence of the objects of sense — the one *intelligible* or in the mind; the other *real* and without the mind; whereby unthinking things are thought to have a natural subsistence of their own, distinct from being perceived by spirits. This, which,

if I mistake not, hath been shewn to be a most groundless and absurd notion, is the very root of Scepticism; for, so long as men thought that real things subsisted without the mind, and that their knowledge was only so far forth *real* as it was conformable to *real things*, it follows they could not be certain that they had any real knowledge at all. For, how can it be known that the things which are perceived are conformable to those which are not perceived, or exist without the mind?

49 87. Colour, figure, motion, extension, and the like, considered only as so many *sensations* in the mind, are perfectly known, there being nothing in them which is not perceived. But, if they are looked on as notes or images, referred to *things* or *archetypes* existing without the mind, then are we involved all in scepticism. We see only the appearances, and not the real qualities of things. What may be the extension, figure, or motion of anything really and absolutely, or in itself, it is impossible for us to know, but only the proportion or relation they bear to our senses. Things remaining the same, our ideas vary, and which of them, or even whether any of them at all, represent the true quality really existing in the thing, it is out of our reach to determine. So that, for aught we know, all we see, hear, and feel, may be only phantom and vain chimera, and not at all agree with the real things existing *in rerum natura*. All this sceptical cant follows from our supposing a difference between *things* and *ideas*, and that the former have a subsistence without the mind or unperceived. It were easy to dilate on this subject, and shew how the arguments urged by sceptics in all ages depend on the supposition of external objects.

50 88. So long as we attribute a real existence to unthinking things, distinct from their being perceived, it is not only impossible for us to know with evidence the nature of any real unthinking being, but even that it exists. Hence it is that we see philosophers distrust their senses, and doubt of the existence of heaven and earth, of everything they see or feel, even of their own bodies. And, after all their labouring and struggle of thought, they are forced to own we cannot attain to any self-evident or demonstrative knowledge of the existence of sensible things. But, all this

doubtfulness, which so bewilders and confounds the mind and makes philosophy ridiculous in the eyes of the world, vanishes if we annex a meaning to our words, and not amuse ourselves with the terms *absolute*, *external*, *exist*, and such like — signifying we know not what. I can as well doubt of my own being as of the being of those things which I actually perceive by sense; it being a manifest contradiction that any sensible object should be immediately perceived by sight or touch, and at the same time have no existence in nature, since the very existence of an unthinking being consists in *being perceived.*

51 89. Nothing seems of more importance towards erecting a firm system of sound and real knowledge, which may be proof against the assaults of Scepticism, than to lay the beginning in a distinct explication of what is meant by *thing*, *reality*, *existence;* for in vain shall we dispute concerning the real existence of things, or pretend to any knowledge thereof, so long as we have not fixed the meaning of those words. *Thing* or *being* is the most general name of all; it comprehends under it two kinds entirely distinct and heterogeneous, and which have nothing common but the name, viz. *spirits* and *ideas.* The former are active, indivisible substances: the latter are inert, fleeting, or dependent beings, which subsist not by themselves, but are supported by, or exist in minds or spiritual substances. We comprehend our own existence by inward feeling or reflexion, and that of other spirits by reason. We may be said to have some knowledge or *notion* of our own minds, of spirits and active beings, whereof in a strict sense we have not ideas. In like manner, we know and have a *notion* of relations between things or ideas — which relations are distinct from the ideas or things related, inasmuch as the latter may be perceived by us without our perceiving the former. To me it seems that *ideas*, *spirits*, and *relations* are all, in their respective kinds, the object of human knowledge and subject of discourse, and that the term *idea* would be improperly extended to signify everything we know or have any notion of.

52 90. Ideas imprinted on the senses are real things, or do really exist: this we do not deny, but we deny they can subsist without

the minds which perceive them, or that they are resemblances of any archetypes existing without the mind; since the very being of a sensation or idea consists in being perceived, and an idea can be like nothing but an idea. Again, the things perceived by sense may be termed *external*, with regard to their origin, in that they are not generated from within by the mind itself, but imprinted by a Spirit distinct from that which perceives them. Sensible objects may likewise be said to be "without the mind" in another sense, namely when they exist in some other mind; thus, when I shut my eyes, the things I saw may still exist, but it must be in another mind.

53 ~~91~~. It were a mistake to think that what is here said derogates in the least from the reality of things. It is acknowledged, on the received principles, that extension, motion, and in a word all sensible qualities, have need of a support, as not being able to subsist by themselves. But the objects perceived by sense are allowed to be nothing but combinations of those qualities, and consequently cannot subsist by themselves. Thus far it is agreed on all hands. So that in denying the things perceived by sense an existence independent of a substance of support wherein they may exist, we detract nothing from the received opinion of their *reality*, and are guilty of no innovation in that respect. All the difference is that, according to us, the unthinking beings perceived by sense have no existence distinct from being perceived, and cannot therefore exist in any other substance than those unextended indivisible substances or *Spirits* which act and think and perceive them; whereas philosophers vulgarly hold the sensible qualities do exist in an inert, extended, unperceiving substance which they call *Matter*, to which they attribute a natural subsistence, exterior to all thinking beings, or distinct from being perceived by any mind whatsoever, even the eternal mind of the Creator, wherein they suppose only ideas of the corporeal substances created by Him: if indeed they allow them to be at all created.

92. For, as we have shewn the doctrine of Matter or corporeal substance to have been the main pillar and support of Scepticism

so likewise upon the same foundation have been raised all the impious schemes of Atheism and Irreligion. Nay, so great a difficulty has it been thought to conceive Matter produced out of nothing, that the most celebrated among the ancient philosophers, even of those who maintained the being of a God, have thought Matter to be uncreated and coeternal with Him. How great a friend *material substance* has been to Atheists in all ages were needless to relate. All their monstrous systems have so visible and necessary a dependence on it that, when this corner-stone is once removed, the whole fabric cannot choose but fall to the ground, insomuch that it is no longer worth while to bestow a particular consideration on the absurdities of every wretched sect of Atheists.

93. That impious and profane persons should readily fall in with those systems which favour their inclinations, by deriding immaterial substance, and supposing the soul to be divisible and subject to corruption as the body; which exclude all freedom, intelligence, and design from the formation of things, and instead thereof make a self-existent, stupid, unthinking substance the root and origin of all beings; that they should hearken to those who deny a Providence, or inspection of a Superior Mind over the affairs of the world, attributing the whole series of events either to blind chance or fatal necessity arising from the impulse of one body on another — all this is very natural. And, on the other hand, when men of better principles observe the enemies of religion lay so great a stress on *unthinking Matter*, and all of them use so much industry and artifice to reduce everything to it; methinks they should rejoice to see them deprived of their grand support, and driven from that only fortress, without which your Epicureans, Hobbists, and the like, have not even the shadow of a pretence, and become the most cheap and easy triumph in the world.

94. The existence of Matter, or bodies unperceived, has not only been the main support of Atheists and Fatalists, but on the same principle doth Idolatry likewise in all its various forms depend. Did men but consider that the sun, moon, and stars, and every other object of the senses, are only so many sensations

in their minds, which have no other existence but barely being perceived, doubtless they would never fall down and worship their own *ideas;* but rather address their homage to that ETERNAL INVISIBLE MIND which produces and sustains all things.

95. The same absurd principle, by mingling itself with the articles of our faith, has occasioned no small difficulties to Christians. For example, about the Resurrection, how many scruples and objections have been raised by Socinians and others? But do not the most plausible of them depend on the supposition that a body is denominated the *same*, with regard not to the form, or that which is perceived by sense, but the material substance, which remains the same under several forms? Take away this *material substance*, about the identity whereof all the dispute is. and mean by *body* what every plain ordinary person means by that word, to wit, that which is immediately seen and felt, which is only a combination of sensible qualities or ideas: and then their most unanswerable objections come to nothing.

96. Matter being once expelled out of nature drags with it so many sceptical and impious notions, such an incredible number of disputes and puzzling questions, which have been thorns in the sides of divines as well as philosophers, and made so much fruitless work for mankind, that if the arguments we have produced against it are not found equal to demonstration (as to me they evidently seem), yet I am sure all friends to knowledge, peace, and religion have reason to wish they were.

97. Beside the external existence of the objects of perception, another great source of errors and difficulties with regard to ideal knowledge is the doctrine of *abstract ideas*, such as it hath been set forth in the Introduction. The plainest things in the world, those we are most intimately acquainted with and perfectly know, when they are considered in an abstract way, appear strangely difficult and incomprehensible. Time, place, and motion, taken in particular or concrete, are what everybody knows; but, having passed through the hands of a metaphysician, they become too abstract and fine to be apprehended by men of ordinary sense. Bid your servant meet you at such a *time* in

such a *place*, and he shall never stay to deliberate on the meaning of those words. In conceiving that particular time and place, or the motion by which he is to get thither, he finds not the least difficulty. But if *time* be taken exclusive of all those particular actions and ideas that diversify the day, merely for the continuation of existence, or duration in abstract, then it will perhaps gravel even a philosopher to comprehend it.

98. For my own part, whenever I attempt to frame a simple idea of *time*, abstracted from the succession of ideas in my mind, which flows uniformly and is participated by all beings, I am lost and embrangled in inextricable difficulties. I have no notion of it at all: only I hear others say it is infinitely divisible, and speak of it in such a manner as leads me to harbour odd thoughts of my existence; since that doctrine lays one under an absolute necessity of thinking, either that he passes away innumerable ages without a thought, or else that he is annihilated every moment of his life, both which seem equally absurd. Time therefore being *nothing*, abstracted from the succession of ideas in our minds, it follows that the duration of any finite spirit must be estimated by the number of ideas or actions succeeding each other in that same spirit or mind. Hence, it is a plain consequence that the soul always thinks; and in truth whoever shall go about to divide in his thoughts, or abstract the *existence* of a spirit from its *cogitation*, will, I believe, find it no easy task.

99. So likewise when we attempt to abstract Extension and Motion from all other qualities, and consider them by themselves, we presently lose sight of them, and run into great extravagances. All which depend on a twofold abstraction: first, it is supposed that extension, for example, may be abstracted from all other sensible qualities; and secondly, that the entity of extension may be abstracted from its being perceived. But, whoever shall reflect, and take care to understand what he says, will, if I mistake not, acknowledge that all sensible qualities are alike *sensations* and alike *real;* that where the extension is, there is the colour, too, to wit, in his mind, and that their archetypes can exist only in some other *mind;* and that the objects of sense are nothing but those sensations combined, blended, or (if one may

so speak) concreted together:— none of all which can be supposed to exist unperceived.

100. What it is for a man to be happy, or an object good, every one may think he knows. But to frame an abstract idea of happiness, prescinded from all particular pleasure, or of goodness from everything that is good, this is what few can pretend to. So likewise a man may be just and virtuous without having precise ideas of justice and virtue. The opinion that those and the like words stand for general notions, abstracted from all particular persons and actions, seems to have rendered morality very difficult, and the study thereof of small use to mankind. And in effect the doctrine of *abstraction* has not a little contributed towards spoiling the most useful parts of knowledge.

135. Having despatched what we intended to say concerning the knowledge of IDEAS, the method we proposed leads us in the next place to treat of SPIRITS — with regard to which, perhaps, human knowledge is not so deficient as is vulgarly imagined. The great reason that is assigned for our being thought ignorant of the nature of Spirits is, our not having an *idea* of it. But, surely it ought not to be looked on as a defect in a human understanding that it does not perceive the idea of spirit, if it is manifestly impossible there should be any such idea. And this if I mistake not has been demonstrated in section 27; to which I shall here add — that a spirit has been shewn to be the only substance or support wherein unthinking beings or ideas can exist; but that this *substance* which supports or perceives ideas should itself be an idea or like an idea is evidently absurd.

136. It will perhaps be said that we want a *sense* (as some have imagined) proper to know substances withal, which, if we had, we might know our own soul as we do a triangle. To this I answer, that, in case we had a new sense bestowed upon us, we could only receive thereby some new sensations or ideas of sense. But I believe nobody will say that what he means by the terms *soul* and *substance* is only some particular sort of idea or sensation. We may therefore infer that, all things duly considered, it is not more reasonable to think our faculties defective,

in that they do not furnish us with an idea of spirit or active thinking substance, than it would be if we should blame them for not being able to comprehend a *round square.*

137. From the opinion that spirits are to be known after the manner of an idea or sensation have risen many absurd and heterodox tenets, and much scepticism about the nature of the soul. It is even probable that this opinion may have produced a doubt in some whether they had any soul at all distinct from their body, since upon inquiry they could not find they had an idea of it. That an *idea* which is inactive, and the existence whereof consists in being perceived, should be the image or likeness of an agent subsisting by itself, seems to need no other refutation than barely attending to what is meant by those words. But, perhaps you will say that though an idea cannot resemble a spirit in its thinking, acting, or subsisting by itself, yet it may in some other respects; and it is not necessary that an idea or image be in all respects like the original.

138. I answer, if it does not in those mentioned, it is impossible it should represent it in any other thing. Do but leave out the power of willing, thinking, and perceiving ideas, and there remains nothing else wherein the idea can be like a spirit. For, by the word *spirit* we mean only that which thinks, wills, and perceives; this, and this alone, constitutes the signification of that term. If therefore it is impossible that any degree of those powers should be represented in an idea, it is evident there can be no idea of a spirit.

139. But it will be objected that, if there is no idea signified by the terms *soul, spirit, and substance,* they are wholly insignificant, or have no meaning in them. I answer, those words do mean or signify a real thing — which is neither an idea nor like an idea, but that which perceives ideas, and wills, and reasons about them. What I am myself, that which I denote by the term *I,* is the same with what is meant by *soul* or *spiritual substance.* If it be said that this is only quarreling at a word, and that, since the immediate significations of other names are by common consent called *ideas,* no reason can be assigned why that which is signified by the name *spirit* or *soul* may not partake in the

same appellation, I answer, all the unthinking objects of the mind agree in that they are entirely passive, and their existence consists only in being perceived; whereas a soul or spirit is an active being, whose existence consists, not in being perceived, but in perceiving ideas and thinking. It is therefore necessary, in order to prevent equivocation and confounding natures perfectly disagreeing and unlike, that we distinguish between *spirit* and *idea*. See sect. 27.

140. In a large sense, indeed, we may be said to have an idea, or rather a notion of *spirit;* that is, we understand the meaning of the word, otherwise we could not affirm or deny anything of it. Moreover, as we conceive the ideas that are in the minds of other spirits by means of our own, which we suppose to be resemblances of them; so we know *other* spirits by means of *our own soul* — which in that sense is the image or idea of them; it having a like respect to other spirits that blueness or heat by me perceived has to those ideas perceived by another.

141. [The *natural immortality of the Soul* is a necessary consequence of the foregoing doctrine. But before we attempt to prove this, it is fit that we explain the meaning of that tenet.]* It must not be supposed that they who assert the natural immortality of the soul are of opinion that it is absolutely incapable of annihilation even by the infinite power of the Creator who first gave it being, but only that it is not liable to be broken or dissolved by the ordinary laws of nature or motion. They indeed who hold the soul of man to be only a thin vital flame, or system of animal spirits, make it perishing and corruptible as the body; since there is nothing more easily dissipated than such a being, which it is naturally impossible should survive the ruin of the tabernacle wherein it is enclosed. And this notion has been greedily embraced and cherished by the worst part of mankind, as the most effectual antidote against all impressions of virtue and religion. But it has been made evident that bodies, of what frame or texture soever, are barely passive ideas in the mind — which is more distant and heterogeneous from them than light is from darkness. We have shewn that the soul is indivisible, incorporeal, unex-

* Omitted from the second edition.

tended, and it is consequently incorruptible. Nothing can be plainer than that the motions, changes, decays, and dissolutions which we hourly see befall natural bodies (and which is what we mean by the *course of nature*) cannot possibly affect an active, simple, uncompounded substance: such a being therefore is indissoluble by the force of nature; that is to say, "the soul of man is *naturally* immortal."

142. After what has been said, it is, I suppose, plain that our souls are not to be known in the same manner as senseless, inactive objects, or by way of *idea*. *Spirits* and *ideas* are things so wholly different, that when we say "they exist," "they are known," or the like, these words must not be thought to signify anything common to both natures. There is nothing alike or common in them: and to expect that by any multiplication or enlargement of our faculties we may be enabled to know a spirit as we do a triangle, seems as absurd as if we should hope to see a sound. This is inculcated because I imagine it may be of moment towards clearing several important questions, and preventing some very dangerous errors concerning the nature of the soul. * We may not, I think, strictly be said to have an *idea* of an active being, or of an action, although we may be said to have a *notion* of them. I have some knowledge or notion of my mind, and its acts about ideas—inasmuch as I know or understand what is meant by these words. What I know, that I have some notion of. I will not say that the terms *idea* and *notion* may not be used convertibly, if the world will have it so; but yet it conduceth to clearness and propriety that we distinguish things very different by different names. It is also to be remarked that, all relations including an act of the mind, we cannot so properly be said to have an idea, but rather a notion of the relations and habitudes between things. But if, in the modern way, the word *idea* is extended to spirits, and relations, and acts, this is, after all, an affair of verbal concern.

143. It will not be amiss to add, that the doctrine of *abstract*

* What follows to the end of this section was introduced in the second edition and in it this special use of the term *notion* was first made.

ideas has had no small share in rendering those sciences intricate and obscure which are particularly conversant about spiritual things. Men have imagined they could frame abstract notions of the powers and acts of the mind, and consider them prescinded as well from the mind or spirit itself, as from their respective objects and effects. Hence a great number of dark and ambiguous terms, presumed to stand for abstract notions, have been introduced into metaphysics and morality, and from these have grown infinite distractions and disputes among the learned.

144. But, nothing seems more to have contributed towards engaging men in controversies and mistakes with regard to the nature and operations of the mind, than the being used to speak of those things in terms borrowed from sensible ideas. For example, the will is termed the *motion* of the soul: this infuses a belief that the mind of man is as a ball in motion, impelled and determined by the objects of sense, as necessarily as that is by the stroke of a racket. Hence arise endless scruples and errors of dangerous consequence in morality. All which, I doubt not, may be cleared, and truth appear plain, uniform, and consistent, could but philosophers be prevailed on to depart from some received prejudices and modes of speech, and retire into themselves, and attentively consider their own meaning.

145. From what has been said, it is plain that we cannot know the existence of other spirits otherwise than by their operations, or the ideas by them excited in us. I perceive several motions, changes, and combinations of ideas, that inform me there are certain particular agents, like myself, which accompany them and concur in their production. Hence, the knowledge I have of other spirits is not immediate, as is the knowledge of my ideas; but depending on the intervention of ideas, by me referred to agents or spirits distinct from myself, as effects or concomitant signs.

146. But, though there be some things which convince us human agents are concerned in producing them, yet it is evident to every one that those things which are called the Works of Nature — that is, the far greater part of the ideas or sensa-

tions perceived by us — are not produced by, or dependent on, the wills of men. There is therefore some other Spirit that causes them; since it is repugnant that they should subsist by themselves. See sect. 29. But, if we attentively consider the constant regularity, order, and concatenation of natural things, the surprising magnificence, beauty, and perfection of the larger, and the exquisite contrivance of the smaller parts of creation, together with the exact harmony and correspondence of the whole; but above all the never-enough-admired laws of pain and pleasure, and the instincts or natural inclinations, appetites, and passions of animals; — I say if we consider all these things, and at the same time attend to the meaning and import of the attributes One, Eternal, Infinitely Wise, Good, and Perfect, we shall clearly perceive that they belong to the aforesaid Spirit, "who works all in all," and "by whom all things consist."

147. Hence, it is evident that God is known as certainly and immediately as any other mind or spirit whatsoever distinct from ourselves. We may even assert that the existence of God is far more evidently perceived than the existence of men; because the effects of Nature are infinitely more numerous and considerable than those ascribed to human agents. There is not any one mark that denotes a man, or effect produced by him, which does not more strongly evince the being of that Spirit who is the Author of Nature. For, it is evident that in affecting other persons the will of man has no other object than barely the motion of the limbs of his body; but that such a motion should be attended by, or excite any idea in the mind of another, depends wholly on the will of the Creator. He alone it is who, "upholding all things by the word of His power," maintains that intercourse between spirits whereby they are able to perceive the existence of each other. And yet this pure and clear light which enlightens every one is itself invisible.

148. It seems to be a general pretence of the unthinking herd that they cannot *see* God. Could we but see Him, say they, as we see a man, we should believe that He is, and believing obey His commands. But alas, we need only open our eyes to see the Sovereign Lord of all things, with a more full and clear view

than we do any one of our fellow-creatures. Not that I imagine we see God (as some will have it) by a direct and immediate view; or see corporeal things, not by themselves, but by seeing that which represents them in the essence of God, which doctrine is, I must confess, to me incomprehensible. But I shall explain my meaning: — A human spirit or person is not perceived by sense, as not being an idea; when therefore we see the colour, size, figure, and motions of a man, we perceive only certain sensations or ideas excited in our own minds; and these being exhibited to our view in sundry distinct collections, serve to mark out unto us the existence of finite and created spirits like ourselves. Hence it is plain we do not see a man — if by *man* is meant that which lives, moves, perceives, and thinks as we do — but only such a certain collection of ideas as directs us to think there is a distinct principle of thought and motion, like to ourselves, accompanying and represented by it. And after the same manner we see God; all the difference is that, whereas some one finite and narrow assemblage of ideas denotes a particular human mind, whithersoever we direct our view, we do at all times and in all places perceive manifest tokens of the Divinity: everything we see, hear, feel, or anywise perceive by Sense, being a sign or effect of the power of God; as is our perception of those very motions which are produced by men.

149. It is therefore plain that nothing can be more evident to any one that is capable of the least reflexion than the existence of God, or a Spirit who is intimately present to our minds — producing in them all that variety of ideas or sensations which continually affect us, on whom we have an absolute and entire dependence, in short "in whom we live, and move, and have our being." That the discovery of this great truth, which lies so near and obvious to the mind, should be attained to by the reason of so very few, is a sad instance of the stupidity and inattention of men, who, though they are surrounded with such clear manifestations of the Deity, are yet so little affected by them that they seem, as it were, blinded with excess of light.

150. But you will say, Hath Nature no share in the production of natural things, and must they be all ascribed to the imme-

diate and sole operation of God? I answer, if by *Nature* is meant only the visible *series* of effects or sensations imprinted on our minds, according to certain fixed and general laws, then it is plain that Nature, taken in this sense, cannot produce anything at all. But, if by *Nature* is meant some being distinct from God, as well as from the laws of nature, and things perceived by sense, I must confess that word is to me an empty sound without any intelligible meaning annexed to it. Nature, in this acceptation, is a vain chimera, introduced by those heathens who had not just notions of the omnipresence and infinite perfection of God. But, it is more unaccountable that it should be received among Christians, professing belief in the Holy Scriptures, which constantly ascribe those effects to the immediate hand of God that heathen philosophers are wont to impute to Nature. "The Lord He causeth the vapours to ascend; He maketh lightnings with rain; He bringeth forth the wind out of his treasures." Jerem. x. 13. "He turneth the shadow of death into the morning, and maketh the day dark with night." Amos v. 8. "He visiteth the earth, and maketh it soft with showers: He blesseth the springing thereof, and crowneth the year with His goodness; so that the pastures are clothed with flocks, and the valleys are covered over with corn." See Psalm lxv. But, notwithstanding that this is the constant language of Scripture, yet we have I know not what aversion from believing that God concerns Himself so nearly in our affairs. Fain would we suppose Him at a great distance off, and substitute some blind unthinking deputy in His stead, though (if we may believe Saint Paul) "He be not far from every one of us."

151. It will, I doubt not, be objected that the slow, gradual, and roundabout methods observed in the production of natural things do not seem to have for their cause the immediate hand of an Almighty Agent. Besides, monsters, untimely births, fruits blasted in the blossom, rains falling in desert places, miseries incident to human life, and the like, are so many arguments that the whole frame of nature is not immediately actuated and superintended by a Spirit of infinite wisdom and goodness. But the answer to this objection is in a good measure plain from sect.

62; it being visible that the aforesaid methods of nature are absolutely necessary, in order to working by the most simple and general rules, and after a steady and consistent manner; which argues both the wisdom and goodness of God. Such is the artificial contrivance of this mighty machine of Nature that, whilst its motions and various phenomena strike on our senses, the hand which actuates the whole is itself unperceivable to men of flesh and blood. "Verily" (saith the prophet) "thou art a God that hidest thyself." Isaiah xlv. 15. But, though the Lord conceal Himself from the eyes of the sensual and lazy, who will not be at the least expense of thought, yet to an unbiassed and attentive mind nothing can be more plainly legible than the intimate presence of an All-wise Spirit, who fashions, regulates, and sustains the whole system of beings. It is clear, from what we have elsewhere observed, that the operating according to general and stated laws is so necessary for our guidance in the affairs of life, and letting us into the secret of nature, that without it all reach and compass of thought, all human sagacity and design, could serve to no manner of purpose. It were even impossible there should be any such faculties or powers in the mind. See sect. 31. Which one consideration abundantly outbalances whatever particular inconveniences may thence arise.

152. But we should further consider that the very blemishes and defects of nature are not without their use, in that they make an agreeable sort of variety, and augment the beauty of the rest of the creation, as shades in a picture serve to set off the brighter and more enlightened parts. We would likewise do well to examine whether our taxing the waste of seeds and embryos, and accidental destruction of plants and animals, before they come to full maturity, as an imprudence in the Author of nature, be not the effect of prejudice contracted by our familiarity with impotent and saving mortals. In man indeed a thrifty management of those things which he cannot procure without much pains and industry may be esteemed wisdom. But, we must not imagine that the inexplicably fine machine of an animal or vegetable costs the great Creator any more pains or trouble in its production than a pebble does; nothing being more evident

than that an Omnipotent Spirit can indifferently produce everything by a mere *fiat* or act of His will. Hence it is plain that the splendid profusion of natural things should not be interpreted weakness or prodigality in the Agent who produces them, but rather be looked on as an argument of the riches of His power.

153. As for the mixture of pain or uneasiness which is in the world, pursuant to the general laws of Nature, and the actions of finite, imperfect Spirits, this, in the state we are in at present, is indispensably necessary to our well-being. But our prospects are too narrow. We take, for instance, the idea of some one particular pain into our thoughts, and account it *evil;* whereas, if we enlarge our view, so as to comprehend the various ends, connexions, and dependencies of things, on what occasions and in what proportions we are affected with pain and pleasure, the nature of human freedom, and the design with which we are put into the world; we shall be forced to acknowledge that those particular things which, considered in themselves, appear to be evil, have the nature of good, when considered as linked with the whole system of beings.

154. From what has been said, it will be manifest to any considering person, that it is merely for want of attention and comprehensiveness of mind that there are any favourers of Atheism or the Manichæan Heresy * to be found. Little and unreflecting souls may indeed burlesque the works of Providence — the beauty and order whereof they have not capacity, or will not be at the pains, to comprehend; but those who are masters of any justness and extent of thought, and are withal used to reflect, can never sufficiently admire the divine traces of Wisdom and Goodness that shine throughout the Economy of Nature. But what truth is there which glares so strongly on the mind that, by an aversion of thought — a wilful shutting of the eyes — we may not escape seeing it? Is it therefore to be wondered at, if the generality of men, who are ever intent on business or pleasure, and little used to fix or open the eye of their mind, should not have all that

* Manichæism, the doctrine of Manes, a Persian philosopher of the third century, who held the essential and eternal duality of the Supreme Power to be the explanation of the mingled good and evil that is in the universe.

conviction and evidence of the Being of God which might be expected in reasonable creatures?

155. We should rather wonder that men can be found so stupid as to neglect, than that neglecting they should be unconvinced of such an evident and momentous truth. And yet it is to be feared that too many of parts and leisure, who live in Christian countries, are, merely through a supine and dreadful negligence, sunk into Atheism. [They cannot say there is not a God, but neither are they convinced that there is.]* Since it is downright impossible that a soul pierced and enlightened with a thorough sense of the omnipresence, holiness, and justice of that Almighty Spirit should persist in a remorseless violation of His laws, — we ought, therefore, earnestly to meditate and dwell on those important points; that so we may attain conviction without all scruple "that the eyes of the Lord are in every place beholding the evil and the good; that He is with us and keepeth us in all places whither we go, and giveth us bread to eat and raiment to put on;" that He is present and conscious to our innermost thoughts; in fine, that we have a most absolute and immediate dependence on Him. A clear view of which great truths cannot choose but fill our hearts with an awful circumspection and holy fear, which is the strongest incentive to *Virtue*, and the best guard against *Vice*.

156. For, after all, what deserves the first place in our studies is the consideration of GOD and our *Duty*; which to promote, as it was the main drift and design of my labours, so shall I esteem them altogether useless and ineffectual if, by what I have said, I cannot inspire my readers with a pious sense of the Presence of God; and, having shewn the falseness or vanity of those barren speculations which make the chief employment of learned men, the better dispose them to reverence and embrace the salutary truths of the Gospel, which to know and to practice is the highest perfection of human nature.

* Omitted in second edition.

DAVID HUME

(1711–1776)

AN ENQUIRY CONCERNING HUMAN UNDERSTANDING*

SECTION II. OF THE ORIGIN OF IDEAS

EVERY one will readily allow, that there is a considerable difference between the perceptions of the mind, when a man feels the pain of excessive heat, or the pleasure of moderate warmth, and when he afterwards recalls to his memory this sensation, or anticipates it by his imagination. These faculties may mimic or copy the perceptions of the senses; but they never can entirely reach the force and vivacity of the original sentiment. The utmost we say of them, even when they operate with greatest vigour, is, that they represent their object in so lively a manner, that we could *almost* say we feel or see it. But, except the mind be disordered by disease or madness, they never can arrive at such a pitch of vivacity, as to render these perceptions altogether undistinguishable. All the colours of poetry, however splendid, can never paint natural objects in such a manner as to make the description be taken for a real landskip. The most lively thought is still inferior to the dullest sensation.

We may observe a like distinction to run through all the other perceptions of the mind. A man in a fit of anger, is actuated in a very different manner from one who only thinks of that emotion. If you tell me, that any person is in love, I easily understand your meaning, and form a just conception of his situation; but never can mistake that conception for the real disorders and agitations of the passion. When we reflect on our past sentiments and affections, our thought is a faithful mirror, and copies its objects truly; but the colours which it employs are faint and dull, in comparison of those in which our original perceptions

* First edition, London, 1748; *id.*, Essays, *ib.*, 1777; *ib.*, 1898, vol. ii.

were clothed. It requires no nice discernment or metaphysical head to mark the distinction between them.

Here therefore we may divide all the perceptions of the mind into two classes or species, which are distinguished by their different degrees of force and vivacity. The less forcible and lively are commonly denominated *Thoughts* or *Ideas*. The other species want a name in our language, and in most others; I suppose, because it was not requisite for any but philosophical purposes, to rank them under a general term or appellation. Let us, therefore, use a little freedom, and call them *Impressions;* employing that word in a sense somewhat different from the usual. By the term *impression*, then, I mean all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will. And the impressions are distinguished from ideas, which are the less lively perceptions, of which we are conscious, when we reflect on any of those sensations or movements above mentioned.

Nothing, at first view, may seem more unbounded than the thought of man, which not only escapes all human power and authority, but is not even restrained within the limits of nature and reality. To form monsters, and join incongruous shapes and appearances, costs the imagination no more trouble than to conceive the most natural and familiar objects. And while the body is confined to one planet, along which it creeps with pain and difficulty; the thought can in an instant transport us into the most distant regions of the universe; or even beyond the universe, into the unbounded chaos, where nature is supposed to lie in total confusion. What never was seen, or heard of, may yet be conceived; nor is any thing beyond the power of thought, except what implies an absolute contradiction.

But though our thought seems to possess this unbounded liberty, we shall find, upon a nearer examination, that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience. When we think of a golden mountain, we only join two consistent ideas, *gold*, and

mountain, with which we were formerly acquainted. A virtuous horse we can conceive; because, from our own feeling, we can conceive virtue; and this we may unite to the figure and shape of a horse, which is an animal familiar to us. In short, all the materials of thinking are derived either from our outward or inward sentiment: The mixture and composition of these belongs alone to the mind and will. Or, to express myself in philosophical language, all our ideas or more feeble perceptions are copies of our impressions or more lively ones.

To prove this, the two following arguments will, I hope, be sufficient. First, when we analyze our thoughts or ideas, however compounded or sublime, we always find that they resolve themselves into such simple ideas as were copied from a precedent feeling or sentiment. Even those ideas, which, at first view, seem the most wide of this origin, are found, upon a nearer scrutiny, to be derived from it. The idea of God, as meaning an infinitely intelligent, wise, and good Being, arises from reflecting on the operations of our own mind, and augmenting, without limit, those qualities of goodness and wisdom. We may prosecute this enquiry to what length we please; where we shall always find, that every idea which we examine is copied from a similar impression. Those who would assert that this position is not universally true nor without exception, have only one, and that an easy method of refuting it; by producing that idea, which, in their opinion, is not derived from this source. It will then be incumbent on us, if we would maintain our doctrine, to produce the impression, or lively perception, which corresponds to it.

Secondly. If it happen, from a defect of the organ, that a man is not susceptible of any species of sensation, we always find that he is as little susceptible of the correspondent ideas. A blind man can form no notion of colours; a deaf man of sounds. Restore either of them that sense in which he is deficient; by opening this new inlet for his sensations, you also open an inlet for the ideas; and he finds no difficulty in conceiving these objects. The case is the same, if the object, proper for exciting any sensation, has never been applied to the organ. A Laplander

or Negro has no notion of the relish of wine. And though there are few or no instances of a like deficiency in the mind, where a person has never felt or is wholly incapable of a sentiment or passion that belongs to his species; yet we find the same observation to take place in a less degree. A man of mild manners can form no idea of inveterate revenge or cruelty; nor can a selfish heart easily conceive the heights of friendship and generosity. It is readily allowed, that other beings may possess many senses of which we can have no conception; because the ideas of them have never been introduced to us in the only manner by which an idea can have access to the mind, to wit, by the actual feeling and sensation.

There is, however, one contradictory phenomenon, which may prove that it is not absolutely impossible for ideas to arise, independent of their correspondent impressions. I believe it will readily be allowed, that the several distinct ideas of colour, which enter by the eye, or those of sound, which are conveyed by the ear, are really different from each other; though, at the same time, resembling. Now if this be true of different colours, it must be no less so of the different shades of the same colour; and each shade produces a distinct idea, independent of the rest. For if this should be denied, it is possible, by the continual gradation of shades, to run a colour insensibly into what is most remote from it; and if you will not allow any of the means to be different, you cannot, without absurdity, deny the extremes to be the same. Suppose, therefore, a person to have enjoyed his sight for thirty years, and to have become perfectly acquainted with colours of all kinds except one particular shade of blue, for instance, which it never has been his fortune to meet with. Let all the different shades of that colour, except that single one, be placed before him, descending gradually from the deepest to the lightest; it is plain that he will perceive a blank, where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous colours than in any other. Now I ask, whether it be possible for him, from his own imagination, to supply this deficiency, and raise up to himself the idea of that particular shade, though it had never been conveyed

to him by his senses? I believe there are few but will be of opinion that he can: and this may serve as a proof that the simple ideas are not always, in every instance, derived from the correspondent impressions; though this instance is so singular, that it is scarcely worth our observing, and does not merit that for it alone we should alter our general maxim.

Here, therefore, is a proposition, which not only seems, in itself, simple and intelligible; but, if a proper use were made of it, might render every dispute equally intelligible, and banish all that jargon, which has so long taken possession of metaphysical reasonings, and drawn disgrace upon them. All ideas, especially abstract ones, are naturally faint and obscure: the mind has but a slender hold of them: they are apt to be confounded with other resembling ideas; and when we have often employed any term, though without a distinct meaning, we are apt to imagine it has a determinate idea annexed to it. On the contrary, all impressions, that is, all sensations, either outward or inward, are strong and vivid: The limits between them are more exactly determined: nor is it easy to fall into any error or mistake with regard to them. When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, *from what impression is that supposed idea derived?* And if it be impossible to assign any, this will serve to confirm our suspicion.[1] By bring-

[1] It is probable that no more was meant by those, who denied innate ideas, than that all ideas were copies of our impressions; though it must be confessed, that the terms, which they employed, were not chosen with such caution, nor so exactly defined, as to prevent all mistakes about their doctrine. For what is meant by *innate?* If innate be equivalent to natural, then all the perceptions and ideas of the mind must be allowed to be innate or natural, in whatever sense we take the latter word, whether in opposition to what is uncommon, artificial, or miraculous. If by innate be meant, contemporary to our birth, the dispute seems to be frivolous; nor is it worth while to enquire at what time thinking begins, whether before, at, or after our birth. Again, the word *idea*, seems to be commonly taken in a very loose sense, by LOCKE and others; as standing for any of our perceptions, our sensations and passions, as well as thoughts. Now in this sense, I should desire to know, what can be meant by asserting, that self-love, or resentment of injuries, or the passion between the sexes is not innate?

But admitting these terms, *impressions* and *ideas*, in the sense above explained, and understanding by *innate*, what is original or copied from no precedent

ing ideas into so clear a light we may reasonably hope to remove all dispute, which may arise, concerning their nature and reality.

SECTION III. OF THE ASSOCIATION OF IDEAS

It is evident, that there is a principle or connexion between the different thoughts or ideas of the mind, and that, in their appearance to the memory or imagination, they introduce each other with a certain degree of method and regularity. In our more serious thinking or discourse this is so observable that any particular thought, which breaks in upon the regular tract or chain of ideas, is immediately remarked and rejected. And even in our wildest and most wandering reveries, nay in our very dreams, we shall find, if we reflect, that the imagination ran not altogether at adventures, but that there was still a connexion upheld among the different ideas, which succeeded each other. Were the loosest and freest conversation to be transcribed there would immediately be observed something which connected it in all its transitions. Or where this is wanting, the person who broke the thread of discourse might still inform you, that there had secretly revolved in his mind a succession of thought, which had gradually led him from the subject of conversation. Among different languages, even where we cannot suspect the least connexion or communication, it is found, that the words, expressive of ideas, the most compounded, do yet nearly correspond to each other: a certain proof, that the simple ideas, comprehended in the compound ones, were bound together by some universal principle, which had an equal influence on all mankind.

Though it be too obvious to escape observation, that different ideas are connected together; I do not find that any philosopher has attempted to enumerate or class all the principles of associa-

perception, then may we assert that all our impressions are innate and our ideas not innate.

To be ingenuous, I must own it to be my opinion, that MR. LOCKE was betrayed into this question by the schoolmen, who, making use of undefined terms, draw out their disputes to a tedious length, without ever touching the point in question. A like ambiguity and circumlocution seem to run through that philosopher's reasonings on this as well as most other subjects.

tion; a subject, however, that seems worthy of curiosity. To me, there appear to be only three principles of connexion among ideas, namely, *Resemblance*, *Contiguity* in time or place, and *Cause* or *Effect*.

That these principles serve to connect ideas will not, I believe, be much doubted. A picture naturally leads our thoughts to the original:[1] the mention of one apartment in a building naturally introduces an enquiry or discourse concerning the others:[2] and if we think of a wound, we can scarcely forbear reflecting on the pain which follows it.[3] But that this enumeration is complete, and that there are no other principles of association except these, may be difficult to prove to the satisfaction of the reader, or even to a man's own satisfaction. All we can do, in such cases, is to run over several instances, and examine carefully the principle which binds the different thoughts to each other, never stopping till we render the principle as general as possible.[4] The more instances we examine, and the more care we employ, the more assurance shall we acquire, that the enumeration, which we form from the whole, is complete and entire.

SECTION IV. SCEPTICAL DOUBTS CONCERNING THE OPERATIONS OF THE UNDERSTANDING

Part I

All the objects of human reason or enquiry may naturally be divided into two kinds, to wit, *Relations of Ideas*, and *Matters of Fact*. Of the first kind are the sciences of Geometry, Algebra, and Arithmetic; and in short, every affirmation which is either intuitively or demonstratively certain. *That the square of the hypothenuse is equal to the squares of the two sides*, is a proposition which expresses a relation between these figures. *That three times five is equal to the half of thirty*, expresses a relation be-

[1] Resemblance. [2] Contiguity. [3] Cause and effect.

[4] For instance, Contrast or Contrariety is also a connexion among Ideas; but it may, perhaps, be considered as a mixture of *Causation* and *Resemblance*. Where two objects are contrary, the one destroys the other; that is, is the cause of its annihilation, and the idea of the annihilation of an object implies the idea of its former existence.

tween these numbers. Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. Though there never were a circle or triangle in nature, the truths demonstrated by Euclid would for ever retain their certainty and evidence.

Matters of fact, which are the second objects of human reason, are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible; because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness, as if ever so conformable to reality. *That the sun will not rise to-morrow* is no less intelligible a proposition, and implies no more contradiction than the affirmation, *that it will rise.* We should in vain, therefore, attempt to demonstrate its falsehood. Were it demonstratively false, it would imply a contradiction, and could never be distinctly conceived by the mind.

It may, therefore, be a subject worthy of curiosity, to enquire what is the nature of that evidence which assures us of any real existence and matter of fact, beyond the present testimony of our senses, or the records of our memory. This part of philosophy, it is observable, has been little cultivated, either by the ancients or moderns; and therefore our doubts and errors, in the prosecution of so important an enquiry, may be the more excusable; while we march through such difficult paths without any guide or direction. They may even prove useful, by exciting curiosity, and destroying that implicit faith and security, which is the bane of all reasoning and free enquiry. The discovery of defects in the common philosophy, if any such there be, will not, I presume, be a discouragement, but rather an incitement, as is usual, to attempt something more full and satisfactory than has yet been proposed to the public.

All reasonings concerning matter of fact seem to be founded on the relation of *Cause and Effect.* By means of that relation alone we can go beyond the evidence of our memory and senses. If you were to ask a man, why he believes any matter of fact, which is absent; for instance, that his friend is in the country, or

in France; he would give you a reason; and this reason would be some other fact; as a letter received from him, or the knowledge of his former resolutions and promises. A man finding a watch or any other machine in a desert island, would conclude that there had once been men in that island. All our reasonings concerning fact are of the same nature. And here it is constantly supposed that there is a connexion beween the present fact and that which is inferred from it. Were there nothing to bind them together, the inference would be entirely precarious. The hearing of an articulate voice and rational discourse in the dark assures us of the presence of some person: Why? because these are the effects of the human make and fabric, and closely connected with it. If we anatomize all the other reasonings of this nature, we shall find that they are founded on the relation of cause and effect, and that this relation is either near or remote, direct or collateral. Heat and light are collateral effects of fire, and the one effect may justly be inferred from the other.

If we would satisfy ourselves, therefore, concerning the nature of that evidence, which assures us of matters of fact, we must enquire how we arrive at the knowledge of cause and effect.

I shall venture to affirm, as a general proposition, which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings *a priori;* but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other. Let an object be presented to a man of ever so strong natural reason and abilities; if that object be entirely new to him, he will not be able, by the most accurate examination of its sensible qualities, to discover any of its causes or effects. Adam, though his rational faculties be supposed, at the very first, entirely perfect, could not have inferred from the fluidity and transparency of water that it would suffocate him, or from the light and warmth of fire that it would consume him. No object ever discovers, by the qualities which appear to the senses, either the causes which produced it, or the effects which will arise from it; nor can our reason, unassisted by experience, ever draw any inference concerning real existence and matter of fact.

This proposition, *that causes and effects are discoverable, not by reason but by experience*, will readily be admitted with regard to such objects, as we remember to have once been altogether unknown to us; since we must be conscious of the utter inability, which we then lay under, of foretelling what would arise from them. Present two smooth pieces of marble to a man who has no tincture of natural philosophy; he will never discover that they will adhere together in such a manner as to require great force to separate them in a direct line, while they make so small a resistance to a lateral pressure. Such events, as bear little analogy to the common course of nature, are also readily confessed to be known only by experience; nor does any man imagine that the explosion of gunpowder, or the attraction of a loadstone, could ever be discovered by arguments *a priori*. In like manner, when an effect is supposed to depend upon an intricate machinery or secret structure of parts, we make no difficulty in attributing all our knowledge of it to experience. Who will assert that he can give the ultimate reason, why milk or bread is proper nourishment for a man, not for a lion or a tiger?

But the same truth may not appear, at first sight, to have the same evidence with regard to events, which have become familiar to us from our first appearance in the world, which bear a close analogy to the whole course of nature, and which are supposed to depend on the simple qualities of objects, without any secret structure of parts. We are apt to imagine that we could discover these effects by the mere operation of our reason, without experience. We fancy, that were we brought on a sudden into this world, we could at first have inferred that one Billiard-ball would communicate motion to another upon impulse; and that we needed not to have waited for the event, in order to pronounce with certainty concerning it. Such is the influence of custom, that, where it is strongest, it not only covers our natural ignorance, but even conceals itself, and seems not to take place, merely because it is found in the highest degree.

But to convince us that all the laws of nature, and all the operations of bodies without exception, are known only by experience, the following reflections may, perhaps, suffice. Were

any object presented to us, and were we required to pronounce concerning the effect, which will result from it, without consulting past observation; after what manner, I beseech you, must the mind proceed in this operation? It must invent or imagine some event, which it ascribes to the object as its effect; and it is plain that this invention must be entirely arbitrary. The mind can never possibly find the effect in the supposed cause, by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it. Motion in the second Billiard-ball is a quite distinct event from motion in the first; nor is there anything in the one to suggest the smallest hint of the other. A stone or piece of metal raised into the air, and left without any support, immediately falls: but to consider the matter *a priori*, is there anything we discover in this situation which can beget the idea of a downward, rather than an upward, or any other motion, in the stone or metal?

And as the first imagination or invention of a particular effect, in all natural operations, is arbitrary, where we consult not experience; so must we also esteem the supposed tie or connexion between the cause and effect, which binds them together, and renders it impossible that any other effect could result from the operation of that cause. When I see, for instance, a Billiard-ball moving in a straight line towards another; even suppose motion in the second ball should by accident be suggested to me, as the result of their contact or impulse; may I not conceive, that a hundred different events might as well follow from that cause? May not both these balls remain at absolute rest? May not the first ball return in a straight line, or leap off from the second in any line or direction? All these suppositions are consistent and conceivable. Why then should we give the preference to one, which is no more consistent or conceivable than the rest? All our reasonings *a priori* will never be able to show us any foundation for this preference.

In a word, then, every effect is a distinct event from its cause. It could not therefore, be discovered in the cause, and the first invention or conception of it, *a priori*, must be entirely arbitrary.

And even after it is suggested, the conjunction of it with the cause must appear equally arbitrary; since there are always many other effects, which, to reason, must seem fully as consistent and natural. In vain, therefore, should we pretend to determine any single event, or infer any cause or effect, without the assistance of observation and experience.

Hence we may discover the reason why no philosopher, who is rational and modest, has ever pretended to assign the ultimate cause of any natural operation, or to show distinctly the action of that power, which produces any single effect in the universe. It is confessed, that the utmost effort of human reason is to reduce the principles, productive of natural phenomena, to a greater simplicity, and to resolve the many particular effects into a few general causes, by means of reasonings from analogy, experience, and observation. But as to the causes of these general causes, we should in vain attempt their discovery; nor shall we ever be able to satisfy ourselves, by any particular explication of them. These ultimate springs and principles are totally shut up from human curiosity and enquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse; these are probably the ultimate causes and principles which we ever discover in nature; and we may esteem ourselves sufficiently happy, if, by accurate enquiry and reasoning, we can trace up the particular phenomena to, or near to, these general principles. The most perfect philosophy of the natural kind only staves off our ignorance a little longer: as perhaps the most perfect philosophy of the moral or metaphysical kind serves only to discover larger portions of it. Thus the observation of human blindness and weakness is the result of all philosophy, and meets us at every turn, in spite of our endeavours to elude or avoid it.

Nor is geometry, when taken into the assistance of natural philosophy, even able to remedy this defect, or lead us into the knowledge of ultimate causes, by all that accuracy of reasoning for which it is so justly celebrated. Every part of mixed mathematics proceeds upon the supposition that certain laws are established by nature in her operations; and abstract reasonings are employed, either to assist experience in the discovery of these

laws, or to determine their influence in particular instances, where it depends upon any precise degree of distance and quantity. Thus, it is a law of motion, discovered by experience, that the moment or force of any body in motion is in the compound ratio or proportion of its solid contents and its velocity; and consequently, that a small force may remove the greatest obstacle or raise the greatest weight, if, by any contrivance or machinery, we can increase the velocity of that force, so as to make it an overmatch for its antagonist. Geometry assists us in the application of this law, by giving us the just dimensions of all the parts and figures which can enter into any species of machine; but still the discovery of the law itself is owing merely to experience, and all the abstract reasonings in the world could never lead us one step towards the knowledge of it. When we reason *a priori*, and consider merely any object or cause, as it appears to the mind, independent of all observation, it never could suggest to us the notion of any distinct object, such as its effect; much less, show us the inseparable and inviolable connexion between them. A man must be very sagacious who could discover by reasoning that crystal is the effect of heat, and ice of cold, without being previously acquainted with the operation of these qualities.

Part II

But we have not yet attained any tolerable satisfaction with regard to the question first proposed. Each solution still gives rise to a new question as difficult as the foregoing, and leads us on to farther enquiries. When it is asked, *What is the nature of all our reasonings concerning matter of fact?* the proper answer seems to be, that they are founded on the relation of cause and effect. When again it is asked, *What is the foundation of all our reasonings and conclusions concerning that relation?* it may be replied in one word, Experience. But if we still carry on our sifting humour, and ask, *What is the foundation of all conclusions from experience?* this implies a new question, which may be of more difficult solution and explication. Philosophers, that give themselves airs of superior wisdom and sufficiency, have a hard

task when they encounter persons of inquisitive dispositions, who push them from every corner to which they retreat, and who are sure at last to bring them to some dangerous dilemma. The best expedient to prevent this confusion, is to be modest in our pretentions; and even to discover the difficulty ourselves before it is objected to us. By this means, we may make a kind of merit of our very ignorance.

I shall content myself, in this section, with an easy task, and shall pretend only to give a negative answer to the question here proposed. I say then, that, even after we have experience of the operations of cause and effect, our conclusions from that experience are *not* founded on reasoning, or any process of the understanding. This answer we must endeavour both to explain and to defend.

It must certainly be allowed, that nature has kept us at a great distance from all her secrets, and has afforded us only the knowledge of a few superficial qualities of objects; while she conceals from us those powers and principles on which the influence of those objects entirely depends. Our senses inform us of the colour, weight, and consistence of bread; but neither sense nor reason can ever inform us of those qualities which fit it for the nourishment and support of a human body. Sight or feeling conveys an idea of the actual motion of bodies; but as to that wonderful force or power, which would carry on a moving body for ever in a continued change of place, and which bodies never lose but by communicating it to others; of this we cannot form the most distant conception. But notwithstanding this ignorance of natural powers and principles, we always presume, when we see like sensible qualities, that they have like secret powers, and expect that effects, similar to those which we have experienced, will follow from them. If a body of like colour and consistence with that bread, which we have formerly eat, be presented to us, we make no scruple of repeating the experiment, and foresee, with certainty, like nourishment and support. Now this is a process of the mind or thought, of which I would willingly know the foundation. It is allowed on all hands that there is no known connexion between the sensible qualities and the

secret powers; and consequently, that the mind is not led to form such a conclusion concerning their constant and regular conjunction, by anything which it knows of their nature. As to past *Experience*, it can be allowed to give *direct* and *certain* information of those precise objects only, and that precise period of time, which fell under its cognizance: but why this experience should be extended to future times, and to other objects, which, for aught we know, may be only in appearance similar; this is the main question on which I would insist. The bread, which I formerly eat, nourished me; that is, a body of such sensible qualities was, at that time, endued with such secret powers: but does it follow, that other bread must also nourish me at another time, and that like sensible qualities must always be attended with like secret powers? The consequence seems nowise necessary. At least, it must be acknowledged that there is here a consequence drawn by the mind; that there is a certain step taken; a process of thought, and an inference, which wants to be explained. These two propositions are far from being the same, *I have found that such an object has always been attended with such an effect*, and *I foresee, that other objects, which are, in appearance, similar, will be attended with similar effects*. I shall allow, if you please, that the one proposition may justly be inferred from the other: I know, in fact, that it always is inferred. But if you insist that the inference is made by a chain of reasoning, I desire you to produce that reasoning. The connexion between these propositions is not intuitive. There is required a medium, which may enable the mind to draw such an inference, if indeed it be drawn by reasoning and argument. What that medium is, I must confess, passes my comprehension; and it is incumbent on those to produce it, who assert that it really exists, and is the origin of all our conclusions concerning matter of fact.

This negative argument must certainly, in process of time, become altogether convincing, if many penetrating and able philosophers shall turn their enquiries this way and no one be ever able to discover any connecting proposition or intermediate step, which supports the understanding in this conclusion. But as the question is yet new, every reader may not trust so far to

his own penetration, as to conclude, because an argument escapes his enquiry, that therefore it does not really exist. For this reason it may be requisite to venture upon a more difficult task; and enumerating all the branches of human knowledge, endeavour to show that none of them can afford such an argument.

All reasonings may be divided into two kinds, namely, demonstrative reasoning, or that concerning relations of ideas, and moral reasoning, or that concerning matter of fact and existence. That there are no demonstrative arguments in the case seems evident; since it implies no contradiction that the course of nature may change, and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects. May I not clearly and distinctly conceive that a body, falling from the clouds, and which, in all other respects, resembles snow, has yet the taste of salt or feeling of fire? Is there any more intelligible proposition than to affirm, that all the trees will flourish in December and January, and decay in May and June? Now whatever is intelligible, and can be distinctly conceived, implies no contradiction, and can never be proved false by any demonstrative argument or abstract reasoning *a priori*.

If we be, therefore, engaged by arguments to put trust in past experience, and make it the standard of our future judgement, these arguments must be probable only, or such as regard matter of fact and real existence, according to the division above mentioned. But that there is no argument of this kind, must appear, if our explication of that species of reasoning be admitted as solid and satisfactory. We have said, that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental conclusions proceed upon the supposition that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must be evidently going in a circle, and taking that for granted, which is the very point in question.

In reality, all arguments from experience are founded on the similarity which we discover among natural objects, and by which

we are induced to expect effects similar to those which we have found to follow from such objects. And though none but a fool or madman will ever pretend to dispute the authority of experience, or to reject that great guide of human life, it may surely be allowed a philosopher to have so much curiosity at least as to examine the principle of human nature, which gives this mighty authority to experience, and makes us draw advantage from that similarity which nature has placed among different objects. From causes which appear *similar* we expect similar effects. This is the sum of all our experimental conclusions. Now it seems evident that, if this conclusion were formed by reason, it would be as perfect at first, and upon one instance, as after ever so long a course of experience. But the case is far otherwise. Nothing so like as eggs; yet no one, on account of this appearing similarity, expects the same taste and relish in all of them. It is only after a long course of uniform experiments in any kind, that we attain a firm reliance and security with regard to a particular event. Now where is that process of reasoning which, from one instance, draws a conclusion, so different from that which it infers from a hundred instances that are nowise different from that single one? This question I propose as much for the sake of information, as with an intention of raising difficulties. I cannot find, I cannot imagine any such reasoning. But I keep my mind still open to instruction, if any one will vouchsafe to bestow it on me.

Should it be said, that, from a number of uniform experiments, we *infer* a connexion between the sensible qualities and the secret powers; this, I must confess, seems the same difficulty, couched in different terms. The question still recurs, on what process of argument this *inference* is founded? Where is the medium, the interposing ideas, which join propositions so very wide of each other? It is confessed that the colour, consistence, and other sensible qualities of bread appear not, of themselves, to have any connexion with the secret powers of nourishment and support. For otherwise we could infer these secret powers from the first appearance of these sensible qualities, without the aid of experience; contrary to the sentiment of all philosophers, and

contrary to plain matter of fact. Here, then, is our natural state of ignorance with regard to the powers and influence of all objects. How is this remedied by experience? It only shows us a number of uniform effects, resulting from certain objects, and teaches us that those particular objects, at that particular time, were endowed with such powers and forces. When a new object, endowed with similar sensible qualities, is produced, we expect similar powers and forces, and look for a like effect. From a body of like colour and consistence with bread we expect like nourishment and support. But this surely is a step or progress of the mind, which wants to be explained. When a man says, *I have found, in all past instances, such sensible qualities conjoined with such secret powers,* and when he says, *Similar sensible qualities will always be conjoined with similar secret powers,* he is not guilty of a tautology, nor are these propositions in any respect the same. You say that the one proposition is an inference from the other. But you must confess that the inference is not intuitive; neither is it demonstrative. Of what nature is it, then? To say it is experimental, is begging the question. For all inferences from experience suppose, as their foundation, that the future will resemble the past, and that similar powers will be conjoined with similar sensible qualities. If there be any suspicion that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless, and can give rise to no inference or conclusion. It is impossible, therefore, that any arguments from experience can prove this resemblance of the past to the future; since all these arguments are founded on the supposition of that resemblance. Let the course of things be allowed hitherto ever so regular; that alone, without some new argument or inference, proves not that, for the future, it will continue so. In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature, and consequently all their effects and influence, may change, without any change in their sensible qualities. This happens sometimes, and with regard to some objects: why may it not happen always, and with regard to all objects? What logic, what process of argument secures you against this

supposition? My practice, you say, refutes my doubts. But you mistake the purport of my question. As an agent, I am quite satisfied in the point; but as a philosopher, who has some share of curiosity, I will not say scepticism, I want to learn the foundation of this inference. No reading, no enquiry has yet been able to remove my difficulty, or give me satisfaction in a matter of such importance. Can I do better than propose the difficulty to the public, even though, perhaps, I have small hopes of obtaining a solution? We shall, at least, by this means, be sensible of our ignorance, if we do not augment our knowledge.

I must confess that a man is guilty of unpardonable arrogance who concludes, because an argument has escaped his own investigation, that therefore it does not really exist. I must also confess that, though all the learned, for several ages, should have employed themselves in fruitless search upon any subject, it may still, perhaps, be rash to conclude positively that the subject must, therefore, pass all human comprehension. Even though we examine all the sources of our knowledge, and conclude them unfit for such a subject, there may still remain a suspicion, that the enumeration is not complete, or the examination not accurate. But with regard to the present subject, there are some considerations which seem to remove all this accusation of arrogance or suspicion of mistake.

It is certain that the most ignorant and stupid peasants, nay infants, nay even brute beasts, improve by experience, and learn the qualities of natural objects, by observing the effects which result from them. When a child has felt the sensation of pain from touching the flame of a candle, he will be careful not to put his hand near any candle; but will expect a similar effect from a cause which is similar in its sensible qualities and appearance. If you assert, therefore, that the understanding of the child is led into this conclusion by any process of argument or ratiocination, I may justly require you to produce that argument; nor have you any pretense to refuse so equitable a demand. You cannot say that the argument is abstruse, and may possibly escape your enquiry; since you confess that it is obvious to the capacity of a mere infant. If you hesitate, therefore, a moment,

or if, after reflection, you produce any intricate or profound argument, you, in a manner, give up the question, and confess that it is not reasoning which engages us to suppose the past resembling the future, and to expect similar effects from causes which are, to appearance, similar. This is the proposition which I intended to enforce in the present section. If I be right, I pretend not to have made any mighty discovery. And if I be wrong, I must acknowledge myself to be indeed a very backward scholar; since I cannot now discover an argument which, it seems, was perfectly familiar to me long before I was out of my cradle.

SECTION VII. OF THE IDEA OF NECESSARY CONNEXION

Part I

The great advantage of the mathematical sciences above the moral consists in this, that the ideas of the former, being sensible, are always clear and determinate, the smallest distinction between them is immediately perceptible, and the same terms are still expressive of the same ideas, without ambiguity or variation. An oval is never mistaken for a circle, nor an hyperbola for an ellipsis. The isosceles and scalenum are distinguished by boundaries more exact than vice and virtue, right and wrong. If any term be defined in geometry, the mind readily, of itself, substitutes, on all occasions, the definition for the term defined. Or even when no definition is employed, the object itself may be presented to the senses, and by that means be steadily and clearly apprehended. But the finer sentiments of the mind, the operations of the understanding, the various agitations of the passions, though really in themselves distinct, easily escape us, when surveyed by reflection; nor is it in our power to recall the original object, as often as we have occasion to contemplate it. Ambiguity, by this means, is gradually introduced into our reasonings; similar objects are readily taken to be the same; and the conclusion becomes at last very wide of the premises.

One may safely, however, affirm, that, if we consider these

sciences in a proper light, their advantages and disadvantages nearly compensate each other, and reduce both of them to a state of equality. If the mind, with greater facility, retains the ideas of geometry clear and determinate, it must carry on a much longer and more intricate chain of reasoning, and compare ideas much wider of each other, in order to reach the abstruser truths of that science. And if moral ideas are apt, without extreme care, to fall into obscurity and confusion, the inferences are always much shorter in these disquisitions, and the intermediate steps, which lead to the conclusion, much fewer than in the sciences which treat of quantity and number. In reality, there is scarcely a proposition in Euclid so simple, as not to consist of more parts, than are to be found in any moral reasoning which runs not into chimera and conceit. Where we trace the principles of the human mind through a few steps, we may be very well satisfied with our progress; considering how soon nature throws a bar to all our enquiries concerning causes, and reduces us to an acknowledgment of our ignorance. The chief obstacle, therefore, to our improvement in the moral or metaphysical sciences is the obscurity of the ideas, and ambiguity of the terms. The principal difficulty in the mathematics is the length of inferences and compass of thought, requisite to the forming of any conclusion. And, perhaps, our progress in natural philosophy is chiefly retarded by the want of proper experiments and phænomena, which are often discovered by chance, and cannot always be found, when requisite, even by the most diligent and prudent enquiry. As moral philosophy seems hitherto to have received less improvement than either geometry or physics, we may conclude, that, if there be any difference in this respect among these sciences, the difficulties, which obstruct the progress of the former, require superior care and capacity to be surmounted.

There are no ideas, which occur in metaphysics, more obscure and uncertain, than those of *power*, *force*, *energy* or *necessary connexion*, of which it is every moment necessary for us to treat in all our disquisitions. We shall, therefore, endeavour, in this section, to fix, if possible, the precise meaning of these terms,

and thereby remove some part of that obscurity, which is so much complained of in this species of philosophy.

It seems a proposition, which will not admit of much dispute, that all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to *think* of any thing, which we have not antecedently *felt*, either by our external or internal senses. I have endeavoured [1] to explain and prove this proposition, and have expressed my hopes, that, by a proper application of it, men may reach a greater clearness and precision in philosophical reasonings, than what they have hitherto been able to attain. Complex ideas may, perhaps, be well known by definition, which is nothing but an enumeration of those parts or simple ideas, that compose them. But when we have pushed up definitions to the most simple ideas, and find still some ambiguity and obscurity; what resource are we then possessed of? By what invention can we throw light upon these ideas, and render them altogether precise and determinate to our intellectual view? Produce the impressions or original sentiments, from which the ideas are copied. These impressions are all strong and sensible. They admit not of ambiguity. They are not only placed in a full light themselves, but may throw light on their correspondent ideas, which lie in obscurity. And by this means, we may, perhaps, attain a new microscope or species of optics, by which, in the moral sciences, the most minute and most simple ideas may be so enlarged as to fall readily under our apprehension, and be equally known with the grossest and most sensible ideas, that can be the object of our enquiry.

To be fully acquainted, therefore, with the idea of power or necessary connexion, let us examine its impression; and in order to find the impression with greater certainty, let us search for it in all the sources, from which it may possibly be derived.

When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find, that the one does

[1] Section II, Of the Origin of Ideas.

actually, in fact, follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the *outward* senses. The mind feels no sentiment or *inward* impression from this succession of objects: consequently there is not, in any single, particular instance of cause and effect, any thing which can suggest the idea of power or necessary connexion.

From the first appearance of an object, we never can conjecture what effect will result from it. But were the power or energy of any cause discoverable by the mind, we could foresee the effect, even without experience; and might, at first, pronounce with certainty concerning it, by mere dint of thought and reasoning.

In reality, there is no part of matter, that does ever, by its sensible qualities, discover any power or energy, or give us ground to imagine, that it could produce any thing, or be followed by any other object, which we could denominate its effect. Solidity, extension, motion; these qualities are all complete in themselves, and never point out any other event which may result from them. The scenes of the universe are continually shifting, and one object follows another in an uninterrupted succession; but the power of force, which actuates the whole machine, is entirely concealed from us, and never discovers itself in any of the sensible qualities of body. We know, that, in fact, heat is a constant attendant of flame; but what is the connexion between them, we have no room so much as to conjecture or imagine. It is impossible, therefore, that the idea of power can be derived from the contemplation of bodies, in single instances of their operation; because no bodies ever discover any power, which can be the original of this idea.[1]

Since, therefore, external objects as they appear to the senses, give us no idea of power or necessary connexion, by their opera-

[1] Mr. Locke, in his chapter of power, says, that, finding from experience, that there are several new productions in matter, and concluding that there must somewhere be a power capable of producing them, we arrive at last by this reasoning at the idea of power. But no reasoning can ever give us a new, original, simple idea; as this philosopher himself confesses. This, therefore can never be the origin of that idea.

tion in particular instances, let us see, whether this idea be derived from reflection on the operations of our own minds, and be copied from any internal impression. It may be said, that we are every moment conscious of internal power; while we feel, that, by the simple command of our will, we can move the organs of our body, or direct the faculties of our mind. An act of volition produces motion in our limbs, or raises a new idea in our imagination. This influence of the will we know by consciousness. Hence we acquire the idea of power or energy; and are certain, that we ourselves and all other intelligent beings are possessed of power. This idea, then, is an idea of reflection, since it arises from reflecting on the operations of our own mind, and on the command which is exercised by will, both over the organs of the body and faculties of the soul.

We shall proceed to examine this pretension; and first with regard to the influence of volition over the organs of the body. This influence, we may observe, is a fact, which, like all other natural events, can be known only by experience, and can never be foreseen from any apparent energy or power in the cause, which connects it with the effect, and renders the one an infallible consequence of the other. The motion of our body follows upon the command of our will. Of this we are every moment conscious. But the means, by which this is effected; the energy, by which the will performs so extraordinary an operation; of this we are so far from being immediately conscious, that it must for ever escape our most diligent enquiry.

For *first*, Is there any principle in all nature more mysterious than the union of soul with body; by which a supposed spiritual substance acquires such an influence over a material one, that the most refined thought is able to actuate the grossest matter? Were we empowered, by a secret wish, to remove mountains, or control the planets in their orbit; this extensive authority would not be more extraordinary, nor more beyond our comprehension. But if by consciousness we perceived any power or energy in the will, we must know this power; we must know its connexion with the effect; we must know the secret union of soul and body, and the nature of both these substances; by

which the one is able to operate, in so many instances, upon the other.

Secondly, We are not able to move all the organs of the body with a like authority; though we cannot assign any reason besides experience, for so remarkable a difference between one and the other. Why has the will an influence over the tongue and fingers, not over the heart and liver? This question would never embarrass us, were we conscious of a power in the former case, not in the latter. We should then perceive, independent of experience, why the authority of will over the organs of the body is circumscribed within such particular limits. Being in that case fully acquainted with the power or force, by which it operates, we should also know, why its influence reaches precisely to such boundaries, and no farther.

A man, suddenly struck with palsy in the leg or arm, or who has newly lost those members, frequently endeavours, at first, to move them, and employ them in their usual offices. Here he is as much conscious of power to command such limbs, as a man in perfect health is conscious of power to actuate any member which remains in its natural state and condition. But consciousness never deceives. Consequently, neither in the one case nor in the other, are we ever conscious of any power. We learn the influence of our will from experience alone. And experience only teaches us, how one event constantly follows another; without instructing us in the secret connexion, which binds them together, and renders them inseparable.

Thirdly, We learn from anatomy, that the immediate object of power in voluntary motion, is not the member itself which is moved, but certain muscles, and nerves, and animal spirits, and, perhaps, something still more minute and more unknown, through which the motion is successfully propagated, ere it reach the member itself whose motion is the immediate object of volition. Can there be a more certain proof that the power, by which this whole operation is performed, so far from being directly and fully known by an inward sentiment or consciousness, is, to the last degree, mysterious and unintelligible? Here the mind wills a certain event; immediately another event, un-

known to ourselves, and totally different from the one intended, is produced. This event produces another, equally unknown: till at last, through a long succession, the desired event is produced. But if the original power were felt, it must be known; were it known, its effect also must be known; since all power is relative to its effect. And *vice versa*, if the effect be not known, the power cannot be known nor felt. How indeed can we be conscious of a power to move our limbs, when we have no such power; but only that to move certain animal spirits, which, though they produce at last the motion of our limbs, yet operate in such a manner as is wholly beyond our comprehension?

We may, therefore, conclude from the whole, I hope, without any temerity, though with assurance; that our idea of power is not copied from any sentiment or consciousness of power within ourselves, when we give rise to animal motion, or apply our limbs, to their proper use and office. That their motion follows the command of the will is a matter of common experience, like other natural events; but the power or energy by which this is effected, like that in other natural events, is unknown and inconceivable.[1]

Shall we then assert, that we are conscious of a power or energy in our own minds, when, by an act or command of our will, we raise up a new idea, fix the mind to the contemplation of it, turn it on all sides, and at last dismiss it for some other idea, when we think that we have surveyed it with sufficient accuracy? I believe the same arguments will prove, that even this command of the will gives us no real idea of force or energy.

[1] It may be pretended, that the resistance which we meet with in bodies, obliging us frequently to exert our force, and call up all our power, this gives us the idea of force and power. It is this *nisus*, or strong endeavour, of which we are conscious, that is the original impression from which this idea is copied. But, first, we attribute power to a vast number of objects, where we never can suppose this resistance or exertion of force to take place; to the Supreme Being, who never meets with any resistance; to the mind in its command over its ideas and limbs, in common thinking and motion, where the effect follows immediately upon the will, without any exertion or summoning up of force; to inanimate matter, which is not capable of this sentiment. *Secondly*, This sentiment of an endeavour to overcome resistance has no known connexion with any event: what follows it, we know by experience; but could not know it *a priori*. It must, however, be confessed, that the animal *nisus*, which we experience, though it can afford no accurate precise idea of power, enters very much into that vulgar, inaccurate idea, which is formed of it.

First, It must be allowed, that, when we know a power, we know that very circumstance in the cause, by which it is enabled to produce the effect: for these are supposed to be synonymous. We must, therefore, know both the cause and effect, and the relation between them. But do we pretend to be acquainted with the nature of the human soul and the nature of an idea, or the aptitude of the one to produce the other? This is a real creation; a production of something out of nothing; which implies a power so great, that it may seem, at first sight, beyond the reach of any being, less than infinite. At least it must be owned, that such a power is not felt, nor known, nor even conceivable by the mind. We only feel the event, namely, the existence of an idea, consequent to a command of the will; but the manner, in which this operation is performed, the power by which it is produced, is entirely beyond our comprehension.

Secondly, The command of the mind over itself is limited, as well as its command over the body; and these limits are not known by reason, or any acquaintance with the nature of cause and effect; but only by experience and observation, as in all other natural events and in the operation of external objects. Our authority over our sentiments and passions is much weaker than that over our ideas; and even the latter authority is circumscribed within very narrow boundaries. Will any one pretend to assign the ultimate reason of these boundaries, or show why the power is deficient in one case, not in another.

Thirdly, This self-command is very different at different times. A man in health possesses more of it than one languishing with sickness. We are more master of our thoughts in the morning than in the evening; fasting, than after a full meal. Can we give any reason for these variations, except experience? Where then is the power, of which we pretend to be conscious? Is there not here, either in a spiritual or material substance, or both, some secret mechanism or structure of parts, upon which the effect depends, and which, being entirely unknown to us, renders the power or energy of the will equally unknown and incomprehensible?

Volition is surely an act of the mind, with which we are suffi-

ciently acquainted. Reflect upon it. Consider it on all sides. Do you find anything in it like this creative power, by which it raises from nothing a new idea, and with a kind of *Fiat*, imitates the omnipotence of its Maker, if I may be allowed so to speak, who called forth into existence all the various scenes of nature? So far from being conscious of this energy in the will, it requires as certain experience as that of which we are possessed, to convince us that such extraordinary effects do ever result from a simple act of volition.

The generality of mankind never find any difficulty in accounting for the more common and familiar operations of nature — such as the descent of heavy bodies, the growth of plants, the generation of animals, or the nourishment of bodies by food. But suppose, that, in all these cases, they perceive the very force or energy of the cause, by which it is connected with its effect, and is for ever infallible in its operation. They acquire, by long habit, such a turn of mind, that, upon the appearance of the cause, they immediately expect with assurance its usual attendant, and hardly conceive it possible that any other event could result from it. It is only on the discovery of extraordinary phænomena, such as earthquakes, pestilence, and prodigies of any kind, that they find themselves at a loss to assign a proper cause, and to explain the manner in which the effect is produced by it. It is usual for men, in such difficulties, to have recourse to some invisible intelligent principle[1] as the immediate cause of that event which surprises them; and which, they think, cannot be accounted for from the common powers of nature. But philosophers, who carry their scrutiny a little farther, immediately perceive that, even in the most familiar events, the energy of the cause is as unintelligible as in the most unusual, and that we only learn by experience the frequent *Conjunction* of objects, without being ever able to comprehend anything like *Connexion* between them. Here, then, many philosophers think themselves obliged by reason to have recourse, on all occasions, to the same principle, which the vulgar never appeal to but in cases that appear miraculous and supernatural. They acknowledge mind

[1] θεὸς ἀπὸ μηχανῆς.

and intelligence to be, not only the ultimate and original cause of all things, but the immediate and sole cause of every event which appears in nature. They pretend that those objects which are commonly denominated *causes*, are in reality nothing but *occasions;* and that the true and direct principle of every effect is not any power of force in nature, but a volition of the Supreme Being, who wills that such particular objects should for ever be conjoined with each other. Instead of saying that one billiard-ball moves another by a force which it has derived from the author of nature, it is the Deity himself, they say, who, by a particular volition, moves the second ball, being determined to this operation by the impulse of the first ball, in consequence of those general laws which he has laid down to himself in the government of the universe. But philosophers advancing still in their inquiries, discover that, as we are totally ignorant of the power on which depends the mutual operation of bodies, we are no less ignorant of that power on which depends the operation of mind on body, or of body on mind; nor are we able, either from our senses or consciousness, to assign the ultimate principle in one case more than in the other. The same ignorance, therefore, reduces them to the same conclusion. They assert that the Deity is the immediate cause of the union between soul and body; and that they are not the organs of sense, which, being agitated by external objects, produce sensations in the mind; but that it is a particular volition of our omnipotent Maker, which excites such a sensation, in consequence of such a motion in the organ. In like manner, it is not any energy in the will that produces local motion in our members: it is God himself, who is pleased to second our will, in itself impotent, and to command that motion which we erroneously attribute to our own power and efficacy. Nor do philosophers stop at this conclusion. They sometimes extend the same inference to the mind itself, in its internal operations. Our mental vision or conception of ideas is nothing but a revelation made to us by our Maker. When we voluntarily turn our thoughts to any object, and raise up its image in the fancy; it is not the will which creates that idea; it is the universal Creator, who discovers it to the mind, and renders it present to us.

concept of God according to other philosophers

Thus, according to these philosophers, every thing is full of God. Not content with the principle, that nothing exists but by his will, that nothing possesses any power but by his concession, they rob nature, and all created beings, of every power, in order to render their dependence on the Deity still more sensible and immediate. They consider not that, by this theory, they diminish, instead of magnifying, the grandeur of those attributes, which they affect so much to celebrate. It argues surely more power in the Deity to delegate a certain degree of power to inferior creatures, than to produce every thing by his own immediate volition. It argues more wisdom to contrive at first the fabric of the world with such perfect foresight, that, of itself, and by its proper operation, it may serve all the purposes of providence, than if the great Creator were obliged every moment to adjust its parts, and animate by his breath all the wheels of that stupendous machine.

But if we would have a more philosophical confutation of this theory, perhaps the two following reflections may suffice.

First, It seems to me, that this theory of the universal energy and operation of the Supreme Being, is too bold ever to carry conviction with it to a man, sufficiently apprized of the weakness of human reason, and the narrow limits to which it is confined in all its operations. Though the chain of arguments which con duct to it were ever so logical, there must arise a strong suspicion, if not an absolute assurance, that it has carried us quite beyond the reach of our faculties, when it leads to conclusions so extraordinary, and so remote from common life and experience. We are got into fairy land, long ere we have reached the last steps of our theory; and *there* we have no reason to trust our common methods of argument, or to think that our usual analogies and probabilities have any authority. Our line is too short to fathom such immense abysses. And however we may flatter ourselves that we are guided, in every step which we take, by a kind of verisimilitude and experience; we may be assured that this fancied experience has no authority when we thus apply it to subjects that lie entirely out of the sphere of experience. But on this we shall have occasion to touch afterwards.

Secondly, I cannot perceive any force in the arguments on which this theory is founded. We are ignorant, it is true, of the manner in which bodies operate on each other: their force or energy is entirely incomprehensible; but are we not equally ignorant of the manner or force by which a mind, even the supreme mind, operates either on itself or on body? Whence, I beseech you, do we acquire any idea of it? We have no sentiment or consciousness of this power in ourselves. We have no idea of the Supreme Being but what we learn from reflection on our own faculties. Were our ignorance, therefore, a good reason for rejecting any thing, we should be led into that principle of denying all energy in the Supreme Being as much as in the grossest matter. We surely comprehend as little the operations of one as of the other. Is it more difficult to conceive that motion may arise from impulse than that it may arise from volition? All we know is our profound ignorance in both cases.[1]

PART II

But to hasten to a conclusion of this argument, which is already drawn out to too great a length: we have sought in vain for an idea of power or necessary connexion in all the sources

[1] I need not examine at length the *vis inertiae* which is so much talked of in the new philosophy, and which is ascribed to matter. We find by experience, that a body at rest or in motion continues for ever in its present state, till put from it by some new cause; and that a body impelled takes as much motion from the impelling body as it acquires itself. These are facts. When we call this a *vis inertiae*, we only mark these facts, without pretending to have any idea of the inert power; in the same manner as, when we talk of gravity, we mean certain effects, without comprehending that act of power. It was never the meaning of SIR ISAAC NEWTON to rob second causes of all force or energy; though some of his followers have endeavoured to establish that theory upon his authority. On the contrary, that great philosopher had recourse to an ethereal active fluid to explain his universal attraction; though he was so cautious and modest as to allow, that it was a mere hypothesis, not to be insisted on, without more experiments. I must confess, that there is something in the fate of opinions a little extraordinary. DESCARTES insinuated that doctrine of the universal and sole efficacy of the Deity, without insisting on it. MALEBRANCHE and other CARTESIANS made it the foundation of all their philosophy. It had, however, no authority in England. LOCKE, CLARKE, and CUDWORTH never so much as take notice of it, but suppose all along, that matter has a real, though subordinate and derived power. By what means has it become so prevalent among our modern metaphysicians?

from which we could suppose it to be derived. It appears that, in single instances of the operation of bodies, we never can, by our utmost scrutiny, discover any thing but one event following another, without being able to comprehend any force or power by which the cause operates, or any connexion between it and its supposed effect. The same difficulty occurs in contemplating the operations of mind on body; where we observe the motion of the latter to follow upon the volition of the former, but are not able to observe or conceive the tie which binds together the motion and volition, or the energy by which the mind produces this effect. The authority of the will over its own faculties and ideas is not a whit more comprehensible: So that, upon the whole, there appears not, throughout all nature, any one instance of connexion which is conceivable by us. All events seem entirely loose and separate. One event follows another; but we never can observe any tie between them. They seem *conjoined*, but never *connected*. And as we can have no idea of any thing which never appeared to our outward sense or inward sentiment, the necessary conclusion *seems* to be, that we have no idea of connexion or power at all, and that these words are absolutely without any meaning, when employed either in philosophical reasonings or common life.

But there still remains one method of avoiding this conclusion, and one source which we have not yet examined. When any natural object or event is presented, it is impossible for us, by any sagacity or penetration, to discover, or even conjecture, without experience, what event will result from it, or to carry our foresight beyond that object which is immediately present to the memory and senses. Even after one instance or experiment, where we have observed a particular event to follow upon another, we are not entitled to form a general rule, or foretell what will happen in like cases; it being justly esteemed an unpardonable temerity to judge of the whole course of nature from one single experiment, however accurate or certain. But when one particular species of event has always, in all instances, been conjoined with another, we make no longer any scruple of foretelling one upon the appearance of the other, and of employing

that reasoning which can alone assure us of any matter of fact or existence. We then call the one object, *Cause;* the other, *Effect.* We suppose that there is some connexion between them; some power in the one, by which it infallibly produces the other, and operates with the greatest certainty and strongest necessity.

It appears, then, that this idea of a necessary connexion among events arises from a number of similar instances, which occur, of the constant conjunction of these events; nor can that idea ever be suggested by any one of these instances, surveyed in all possible lights and positions. But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar; except only, that after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. This connexion, therefore, which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion. Nothing farther is in the case. Contemplate the subject on all sides; you will never find any other origin of that idea. This is the sole difference between one instance, from which we can never receive the idea of connexion, and a number of similar instances, by which it is suggested. The first time a man saw the communication of motion by impulse, as by the shock of two billiard-balls, he could not pronounce that the one event was *connected:* but only that it was *conjoined* with the other. After he has observed several instances of this nature, he then pronounces them to be *connected.* What alteration has happened to give rise to this new idea of *connexion?* Nothing but that he now *feels* these events to be *connected* in his imagination, and can readily foretell the existence of one from the appearance of the other. When we say, therefore, that one object is connected with another, we mean only that they have acquired a connexion in our thought, and give rise to this inference, by which they become proofs of each other's existence: a conclusion which is somewhat extraordinary, but which seems founded on sufficient evidence. Nor will its evidence be weakened by any general diffidence of the un-

derstanding, or sceptical suspicion concerning every conclusion which is new and extraordinary. No conclusions can be more agreeable to scepticism than such as make discoveries concerning the weakness and narrow limits of human reason and capacity.

And what stronger instance can be produced of the surprising ignorance and weakness of the understanding than the present? For surely, if there be any relation among objects which it imports to us to know perfectly, it is that of cause and effect. On this are founded all our reasonings concerning matter of fact or existence. By means of it alone we attain any assurance concerning objects which are removed from the present testimony of our memory and senses. The only immediate utility of all sciences, is to teach us, how to control and regulate future events by their causes. Our thoughts and enquiries are, therefore, every moment, employed about this relation; yet so imperfect are the ideas which we form concerning it, that it is impossible to give any just definition of cause, except what is drawn from something extraneous and foreign to it. Similar objects are always conjoined with similar. Of this we have experience. Suitably to this experience, therefore, we may define a cause to be *an object, followed by another, and where all the objects, similar to the first, are followed by objects similar to the second.* Or in other words *where, if the first object had not been, the second never had existed.* The appearance of a cause always conveys the mind, by a customary transition, to the idea of the effect. Of this also we have experience. We may, therefore, suitably to this experience, form another definition of cause, and call it, *an object followed by another, and whose appearance always conveys the thought to that other.* But though both these definitions be drawn from circumstances foreign to the cause, we cannot remedy this inconvenience, or attain any more perfect definition, which may point out that circumstance in the cause, which gives it a connexion with its effect. We have no idea of this connexion; nor even any distinct notion what it is we desire to know, when we endeavour at a conception of it. We say, for instance, that the vibration of this string is the cause of this particular sound. But what do we

mean by that affirmation? We either mean, *that this vibration is followed by this sound, and that all similar vibrations have been followed by similar sounds;* or, *that this vibration is followed by this sound, and that upon the appearance of one the mind anticipates the senses, and forms immediately an idea of the other.* We may consider the relation of cause and effect in either of these two lights; but beyond these, we have no idea of it.[1]

To recapitulate, therefore, the reasonings of this section: Every idea is copied from some preceding impression or sentiment; and where we cannot find any impression, we may be certain that there is no idea. In all single instances of the operation of bodies or minds, there is nothing that produces any impression, nor consequently can suggest any idea of power or necessary connexion. But when many uniform instances appear, and the same object is always followed by the same event; we then begin to entertain the notion of cause and connexion. We then *feel* a new sentiment or impression, to wit, a customary connexion in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea which we seek for. For as this idea arises from a number of similar instances, and not from any single instance, it must arise from that circumstance, in which the number of instances differ from every individual instance. But this customary connexion or transition of the imagination is the only circumstance in which they differ. In every other particular they are alike. The first instance which we saw of motion communicated by the shock of two billiard-balls (to return to this obvious illustration) is exactly similar to any instance that may, at present, occur to us; except only, that we could not, at first, *infer* one event from the other; which we are enabled to do at present, after so long a course of uniform experience. I know not whether the reader will readily apprehend this reasoning. I am afraid that, should I multiply words about it, or throw it into a greater variety of lights, it would only become more obscure and intricate. In all abstract reasonings there is

[1] According to these explications and definitions, the idea of *power* is relative as much as that of *cause;* and both have a reference to an effect, or some other event constantly conjoined with the former. . . .

one point of view which, if we can happily hit, we shall go farther towards illustrating the subject than by all the eloquence in the world. This point of view we should endeavour to reach, and reserve the flowers of rhetoric for subjects which are more adapted to them.

SECTION XII. OF THE ACADEMICAL OR SCEPTICAL PHILOSOPHY

PART III

There is, indeed, a more *mitigated* scepticism or *academical* philosophy, which may be both durable and useful, and which may, in part, be the result of this Pyrrhonism, or *excessive* scepticism, when its undistinguished doubts are, in some measure, corrected by common sense and reflection. The greater part of mankind are naturally apt to be affirmative and dogmatical in their opinions; and while they see objects only on one side, and have no idea of any counterpoising argument, they throw themselves precipitately into the principles, to which they are inclined; nor have they any indulgence for those who entertain opposite sentiments. To hesitate or balance perplexes their understanding, checks their passion, and suspends their action. They are, therefore, impatient till they escape from a state, which to them is so uneasy : and they think, that they could never remove themselves far enough from it, by the violence of their affirmations and obstinacy of their belief. But could such dogmatical reasoners become sensible of the strange infirmities of human understanding, even in its most perfect state, and when most accurate and cautious in its determinations; such a reflection would naturally inspire them with more modesty and reserve, and diminish their fond opinion of themselves, and their prejudice against antagonists. The illiterate may reflect on the disposition of the learned, who, amidst all the advantages of study and reflection, are commonly still diffident in their determinations : and if any of the learned be inclined, from their natural temper, to haughtiness and obstinacy, a small tincture of Pyrrhonism might abate their pride, by showing

them, that the few advantages, which they may have attained over their fellows, are but inconsiderable, if compared with the universal perplexity and confusion, which is inherent in human nature. In general, there is a degree of doubt, and caution, and modesty, which, in all kinds of scrutiny and decision, ought for ever to accompany a just reasoner.

Another species of *mitigated* scepticism which may be of advantage to mankind, and which may be the natural result of the Pyrrhonian doubts and scruples, is the limitation of our enquiries to such subjects as are best adapted to the narrow capacity of human understanding. The *imagination* of man is naturally sublime, delighted with whatever is remote and extraordinary, and running, without control, into the most distant parts of space and time in order to avoid the objects, which custom has rendered too familiar to it. A correct *judgment* observes a contrary method, and avoiding all distant and high enquiries, confines itself to common life, and to such subjects as fall under daily practice and experience; leaving the more sublime topics to the embellishment of poets and orators, or to the arts of priests and politicians. To bring us to so salutary a determination, nothing can be more serviceable, than to be once thoroughly convinced of the force of the Pyrrhonian doubt, and of the impossibility, that anything, but the strong power of natural instinct, could free us from it. Those who have a propensity to philosophy, will still continue their researches; because they reflect, that, besides the immediate pleasure, attending such an occupation, philosophical decisions are nothing but the reflections of common life, methodized and corrected. But they will never be tempted to go beyond common life, so long as they consider the imperfection of those faculties which they employ, their narrow reach, and their inaccurate operations. While we cannot give a satisfactory reason, why we believe, after a thousand experiments, that a stone will fall, or fire burn; can we ever satisfy ourselves concerning any determination, which we may form, with regard to the origin of worlds, and the situation of nature, from, and to eternity?

This narrow limitation, indeed, of our enquiries, is, in every

respect, so reasonable, that it suffices to make the slightest examination into the natural powers of the human mind and to compare them with their objects, in order to recommend it to us. We shall then find what are the proper subjects of science and enquiry.

It seems to me, that the only objects of the abstract science or of demonstration are quantity and number, and that all attempts to extend this more perfect species of knowledge beyond these bounds are mere sophistry and illusion. As the component parts of quantity and number are entirely similar, their relations become intricate and involved; and nothing can be more curious, as well as useful, than to trace, by a variety of mediums their equality or inequality, through their different appearances. But as all other ideas are clearly distinct and different from each other, we can never advance farther, by our utmost scrutiny, than to observe this diversity, and, by an obvious reflection, pronounce one thing not to be another. Or if there be any difficulty in these decisions, it proceeds entirely from the undeterminate meaning of words, which is corrected by juster definitions. That *the square of the hypothenuse is equal to the squares of the other two sides*, cannot be known, let the terms be ever so exactly defined, without a train of reasoning and enquiry. But to convince us of this proposition, *that where there is no property, there can be no injustice*, it is only necessary to define the terms, and explain injustice to be a violation of property. This proposition is, indeed, nothing but a more imperfect definition. It is the same case with all those pretended syllogistical reasonings, which may be found in every other branch of learning, except the sciences of quantity and number; and these may safely, I think, be pronounced the only proper objects of knowledge and demonstration.

All other enquiries of men regard only matter of fact and existence; and these are evidently incapable of demonstration. Whatever *is* may *not be*. No negation of a fact can involve a contradiction. The non-existence of any being, without exception, is as clear and distinct an idea as its existence. The proposition, which affirms it not to be, however false, is no less

conceivable and intelligible, than that which affirms it to be. The case is different with the sciences, properly so called. Every proposition, which is not true, is there confused and unintelligible. That the cube root of 64 is equal to the half of 10, is a false proposition, and can never be distinctly conceived. But that Cæsar, or the angel Gabriel, or any being never existed, may be a false proposition, but still is perfectly conceivable, and implies no contradiction.

The existence, therefore, of any being can only be proved by arguments from its cause or its effect; and these arguments are founded entirely on experience. If we reason *a priori*, anything may appear able to produce anything. The falling of a pebble may, for aught we know, extinguish the sun; or the wish of a man control the planets in their orbits. It is only experience, which teaches us the nature and bounds of cause and effect, and enables us to infer the existence of one object from that of another.[1] Such is the foundation of moral reasoning, which forms the greater part of human knowledge, and is the source of all human action and behaviour.

Moral reasonings are either concerning particular or general facts. All deliberations in life regard the former; as also all disquisitions in history, chronology, geography, and astronomy.

The sciences, which treat of general facts, are politics, natural philosophy, physic, chemistry, &c. where the qualities, causes and effects of a whole species of objects are enquired into.

Divinity or Theology, as it proves the existence of a Deity, and the immortality of souls, is composed partly of reasonings concerning particular, partly concerning general facts. It has a foundation in *reason*, so far as it is supported by experience. But its best and most solid foundation is *faith* and divine revelation.

Morals and criticism are not so properly objects of the understanding as of taste and sentiment. Beauty, whether moral or

[1] That impious maxim of the ancient philosophy, *Ex nihilo, nihil fit*, by which the creation of matter was excluded, ceases to be a maxim, according to this philosophy. Not only the will of the supreme Being may create matter; but, for aught we know *a priori*, the will of any other being might create it, or any other cause, that the most whimsical imagination can assign.

natural, is felt, more properly than perceived. Or if we reason concerning it, and endeavour to fix its standard, we regard a new fact, to wit, the general tastes of mankind, or some such fact, which may be the object of reasoning and enquiry.

When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames: for it can contain nothing but sophistry and illusion.

ÈTIENNE BONNOT DE CONDILLAC
(1715–1780)

TREATISE ON SENSATIONS

Translated from the French by*
FREDERICK C. DE SUMICHRAST

CHAPTER I. THE FIRST NOTIONS OF A MAN POSSESSING THE SENSE OF SMELL ONLY

1. THE notions of our statue being limited to the sense of smell, can include odours only. It cannot have any conception of extent, of form, of anything external to itself, or to its sensations, any more than it can have of colour, sound or taste.

2. If we offer the statue a rose, it will be, in its relation to us, a statue which smells a rose; but in relation to itself, it will be merely the scent itself of the flower.

Therefore, according to the objects which act upon its organ, it will be scent of rose, of carnation, of jasmine, of violet. In a word, odours are, in this respect, merely modifications of the statue itself or modes of being; and it is not capable of believing itself aught else, since these are the only sensations it can feel.

3. Let those philosophers to whom it is so evident that everything is material, put themselves for a moment in the place of the statue, and let them reflect how they could suspect that there exists anything resembling what we call *matter*.

4. We may then already be convinced that it is sufficient to increase or to diminish the number of the senses to cause us to come to conclusions wholly different from those which are at present so natural to us, and our statue, limited to the sense of smell, may thus enable us to comprehend somewhat the class of beings whose notions are the most restricted.

* From *Traité des Sensations*, Paris and London, 1754.

CHAPTER II. OF THE OPERATIONS OF THE MIND IN A MAN LIMITED TO THE SENSE OF SMELL, AND OF THE FACT THAT THE DIFFERENT DEGREES OF PLEASURE AND OF PAIN CONSTITUTE THE PRINCIPLE OF THESE OPERATIONS.

1. With the first odour the capacity for feeling of our statue is wholly taken up by the impression made upon its organ. I call this attention.

2. From that moment it begins to enjoy or to suffer: for if the power of feeling is wholly devoted to a pleasant odour, enjoyment is the result; and if it be wholly devoted to an unpleasant odour, suffering results.

3. But our statue has yet no idea of the different changes it may experience. Therefore it is well; or it is not well, without the desire to be better. Suffering is no more capable of exciting in the statue a longing for an enjoyment of which it has no knowledge, than enjoyment is capable of making it fear an ill of which it is equally ignorant. Consequently, no matter how disagreeable the first sensation may be, even to the point of wounding the organ and of being a violent pain, it cannot cause desire.

While suffering with us is always accompanied by the desire not to suffer, it cannot be so with the statue. Pain creates that desire in us only because the condition of non-suffering is already known to us. The habit we have contracted of looking upon pain as a thing we have been without and of which we may be freed, is the cause that the moment we suffer we immediately desire not to suffer, and this condition is inseparable from a state of suffering.

But the statue which, at the first moment, is conscious of its feeling only through the very pain it experiences, does not know whether it can cease to be a statue and become something else, or cease to exist. It has, as yet, no conception of change, of succession or of duration. Therefore it exists without having the power to form a desire.

4. Once it has observed that it is capable of ceasing to be what it is, in order to become once more what it was before, we shall see its desires spring from a condition of pain, which it will compare with a condition of pleasure recalled to it by memory. Thus it is that pleasure and pain are the sole principle which, determining all the operations of its soul, will gradually raise it to all the knowledge of which it is capable; and in order to determine the progress of which it is susceptible, it will suffice to observe the pleasure it will have to desire, the pains it will have to fear, and the influence of either according to circumstances.

5. Supposing the statue to have no remembrance of the changes it has undergone, then on every occasion of a change it would believe itself to be conscious of sensation for the first time: whole years would be swallowed up in each present moment. Therefore by ever confining its attention to a single mode of being, it would never reckon two together, and would never note their relations to each other: it would enjoy or suffer, without yet knowing desire or fear.

6. But the odour it smells does not, so soon as the odoriferous object ceases to act upon its organ, become wholly lost to the statue. The attention it bestowed upon it still retains the odour, and there remains a more or less strong impression of that odour in proportion as the attention itself has been more or less active. That is memory.

7. When, therefore, our statue is a new odour, there is still present to it the odour that it was the moment before. Its power of feeling is divided between memory and the sense of smell, the former of these faculties being attentive to the past sensation, while the latter is attentive to the present sensation.

8. Thus there are in the statue two modes of feeling, differing only in this, that the one is concerned with a present sensation and the other with a sensation no longer existent, but the impression of which still remains. Unaware of the fact that there are objects which act upon it, unaware even of the fact that it possesses an organ, the statue ordinarily distinguishes between the remembrance of a sensation and a present sensation merely

by dimly feeling what it has been and feeling strongly what it is at the moment.

9. I say *ordinarily*, because remembrance will not always be a faint sentiment, nor sensation a lively one. For every time that memory recalls very strongly these states of being, while, on the contrary, the organ itself receives but slight impressions, the consciousness of a present sensation will be much less vivid than the remembrance of a sensation which has ceased to be.

10. As, therefore, one odour is present to the sense of smell through the impression made by an odoriferous body upon the organ itself, so is another odour present in the memory, because the impression made by another odoriferous body continues in the brain, to which the organ of smell has transmitted it. Passing thus through two states of being, the statue feels that it is no longer what it has been: the knowledge of this change causes it to refer the first state to a different moment from that in which it experiences the second state, and this it is which causes the statue to make a distinction between existing in one way and having existed in another way.

11. The statue is active in relation to one of its two modes of feeling, and passive in relation to the other. It is active when it remembers a sensation, because it has within itself the cause which brings about that recollection, that is memory. It is passive at the moment when it experiences a sensation, because the cause which produces it is external to the statue itself, that is, it lies in the odoriferous bodies which act upon its sense of smell.

12. But, unable even to suspect the action upon itself of objects external to it, it cannot distinguish between a cause within itself and a cause outside of itself. As far as the statue is concerned all the modifications of its state of being appear to it due to itself, and whether it experiences a sensation or merely recalls one, it is never aware of aught save that it is or has been in such and such a state of being. It cannot, therefore, observe any difference between the condition in which it is itself active or that in which it is wholly passive.

13. Nevertheless the more numerous the occasions for the

exercise of the memory the more readily will the memory act. And it is in this way that the statue will acquire the habit of recalling without an effort the changes through which it has passed, and of dividing its attention between what it has been and what it is. For habit is merely the facility of repeating what one has done, and that facility is acquired by the reiteration of the actions.

14. If, after having repeatedly smelled a rose and a carnation, the statue once more smells a rose, the passive attention, acting by the sense of smell, will be wholly given up to the present odour of the rose, and the active attention, which acts through the memory, will be divided between the remains of the scents of the rose and of the carnation. Now these two states of being cannot share the capacity for feeling without comparing themselves one with the other, for comparing is nothing else than bestowing one's attention upon two ideas at the same time.

15. From the moment that comparison exists, judgment exists. Our statue cannot at one and the same time be attentive to the scent of the rose and that of the carnation, without perceiving that the one is not the same as the other, and it cannot be attentive to the odour of a rose which it smells and to that of a rose which it has previously smelled without perceiving that they are a similar modification. Judgment, therefore, is simply the perception of the relation between two ideas which are being compared.

16. As the comparisons and conclusions become more frequent the statue acquires greater facility in making them. It contracts therefore the habit of comparing and judging. Consequently it will be sufficient to make it smell other odours in order to cause it to make additional comparisons, come to additional conclusions and contract new habits.

17. The first sensation it experiences causes no surprise to the statue, for it is as yet unaccustomed to form any kind of judgment, nor is it surprised when, on smelling successively different odours, it perceives each but for a moment. Under these conditions it does not abide by any conclusion it has formed, and the more the statue changes the more it feels itself naturally inclined to change.

Nor will it feel any more surprise if we lead it, by unnoticeable gradations, from the habit of believing itself one odour to the conclusion that it is another odour, for the statue changes without having the power of noticing the change.

But it cannot fail to be surprised if it passes suddenly from a condition to which it was accustomed to a totally different state of which it had no previous conception.

18. This amazement causes it to feel more distinctly the differences between its modes of being. The more abrupt the change from one to the other the greater the astonishment of the statue, and the more is it struck by the contrast between the pleasures and the pains which mark these changes. Its attention, excited by pains which are more keenly felt, applies itself with greater acuteness to the sensations which succeed each other. It therefore compares them more carefully; it judges more accurately their relations to each other. Amazement consequently increases the activity of the operations of its mind. But, because it is by bringing out a more marked opposition between feelings of pleasure and feelings of pain that amazement thus increases activity of mind, it follows that it is always pleasure and pain which are the primary motive cause of its faculties.

19. If each successive odour acts with equal force upon the statue's attention, the memory will remember them in the order in which they followed each other, and they will by this means become connected one with another.

If the series is numerous, the impression made by the most recent odours, being the most recent, will be the strongest; the impression made by the first in order will be imperceptibly weakened, then disappear altogether, and these sensations will be as if they had never been.

But if there be any which have acted but slightly upon the attention, they will leave no impression behind them and will be forgotten as soon as they have been perceived.

Finally the impressions which will have more vividly struck the attention, will be more vividly recalled, and will so strongly engage it that they will be capable of making it forget the others.

20. Memory therefore is a series of ideas forming a sort of

chain. It is this connection which enables us to pass from one idea to another, and to recall the most distant. Therefore we remember an idea that we had some time since only because we recall, more or less rapidly, the intermediary ideas.

21. In the case of the second sensation our statue experiences, it has not to make any selection: it can remember but the first sensation. It will merely act more or less vigorously, according as it is inclined thereto by the intensity of the pleasure or the pain.

But when there has been a succession of changes, the statue, having a great number in remembrance, will be inclined to recall preferably those which can best contribute to its happiness, passing rapidly over the others or dwelling on them only in spite of itself.

To make this truth fully plain it is necessary to know the different degrees of pain and of pleasure of which we are susceptible, and the comparisons which may be drawn between them.

22. Pleasures and pains are of two kinds. Some pertain more especially to the body: they are of the senses; others are within the memory and all the faculties of the soul: these are intellectual or spiritual. But this is a difference which the statue is incapable of observing.

This inability preserves it from an error which we find it difficult to avoid, seeing that these sentiments do not differ one from another as greatly as we imagine. In truth, they are all intellectual and spiritual, since it is the soul only which is capable of feeling. It may be said also that they are all likewise in a certain sense sensible or corporeal, since the body is their sole occasioning cause. It is only with reference to their relation to the faculties of the body or those of the soul that we divide them into two kinds.

23. Pleasure may diminish or increase by degrees; when it diminishes, it tends to disappear, and it vanishes with the sensation. On the contrary, when it increases, it may attain to pain, because the impression becomes too strong for the organ. Thus there are two extreme points in pleasure: the weaker is that in which sensation begins with the least power; it is the first step

from nothingness to feeling; the strongest is that when the sensation cannot augment without ceasing to be agreeable; it is the condition nearest to pain.

The impression of a faint pleasure seems to become concentrated in the organ which transmits it to the soul. But when it has a certain amount of intensity, it is accompanied by an emotion which spreads throughout the whole body. This emotion is a fact which our experience places beyond the shadow of a doubt.

Pain, likewise, may increase or diminish. When it increases it tends to the total destruction of the animal; but, when it diminishes, it does not, like pleasure, tend to the privation of all sense of feeling; on the contrary, the moment which puts an end to it is always pleasant.

24. It is impossible to discover among these various degrees a state of indifference; with the first sensation, no matter how weak it may be, the statue is necessarily ill or well. But once it shall have experienced successively the sharpest pains and the liveliest pleasures, it will consider indifferent, or will cease to regard as agreeable or disagreeable, the weaker sensations which it will have compared with the stronger.

We may therefore suppose that there are for it divers degrees, agreeable or disagreeable, in the modes of being, and others which it regards as indifferent.

25. Whenever it is ill or less well, it recalls its past sensations, compares them with its actual condition, and feels that it is important that it should become once more what it was formerly. Hence springs the need or knowledge of a state of well-being, which it concludes that it needs to enjoy.

Therefore it knows that it has wants only because it compares the pain from which it is suffering with the pleasures it has enjoyed. Destroy in it the remembrance of these pleasures, and the statue will be ill, without suspecting that it has any want, for, in order to feel the need of anything, one must be acquainted with it. Now, in the above supposititious case, the statue is not acquainted with any other state of being than that in which it finds itself. But once it recalls a happier state, its existing condition at once causes it to feel the want of that state. Thus it

that pleasure and pain will always determine the action of its faculties.

26. The want experienced by the statue may be caused by a genuine pain, by a disagreeable sensation, by a sensation less agreeable than those which have preceded it, or, finally, by a state of languor, in which it is reduced to one of those states of being which it has become accustomed to consider indifferent.

If its need is caused by an odour which gives it lively pain, the need appropriates the power of feeling almost wholly, and leaves only strength enough to the memory to remind the statue that it has not always been so ill. Then it becomes incapable of comparing the various states of being through which it has passed; it is unable to judge which is the most agreeable. All that it desires is to emerge from that condition in order to enjoy another, no matter what it may be; and if it were acquainted with a means of escaping from its suffering, it would apply all its faculties to the making use of that means. It is thus that in serious sickness we cease to desire the pleasures we formerly ardently sought, and think only of regaining our health.

When it is a less agreeable sensation which gives rise to the want, there are two cases to be distinguished: either the pleasures with which the statue compares that sensation have been lively, and accompanied by the strongest emotions, or else they have been less powerful and have scarcely moved it.

In the former case, the past happiness is recalled with the greater force the more it differs from the immediate sensation. The emotion which accompanied it is partly reproduced, and drawing to itself almost the totality of the power of feeling, does not permit the agreeable feelings which have preceded or followed it to be noticed. The statue, then, experiencing no distraction, compares more accurately that happiness with its present state; it judges more truly how greatly that state differs from the former, and, as it endeavours to depict it to itself in the most vivid manner, the privation of that happiness gives rise to a more insistent need, and the possession of it becomes a much more necessary welfare.

In the second case, on the contrary, that state of happiness

is recalled with much less intensity: other pleasures divide the attention; the advantages it offers are less felt; it reproduces but little emotion or none at all. Therefore the statue is less interested in its return, and does not apply its faculties to it so earnestly.

Finally, if the need springs from one of those sensations which it has got into the habit of considering indifferent, it lives at first without feeling either pain or pleasure. But this state, compared with the happy situations in which it has found itself, soon becomes disagreeable to the statue, and the pain it then experiences is what we term *ennui*. Meanwhile the ennui lasts, increases, becomes unbearable, and determines powerfully all the faculties towards that happiness of which the statue feels the loss.

This ennui may be as crushing as pain, in which case the statue has no other thought than to get rid of it, and turns, without selecting, to all the conditions of being which are fitted to cause it to disappear. But if we diminish the burden of ennui the condition of the statue will be less unhappy, it will feel less imperiously the need of being rid of it, it will be in a condition to devote its attention to all the agreeable sentiments of which it has any recollection, and it is the pleasure, the remembrance of which it recalls in the liveliest manner, which will draw all the faculties to itself.

27. There are then two principles which determine the degree of action of its faculties: on the one hand, the lively remembrance of a well-being it has lost; on the other, the small amount of pleasure in the sensation actually felt, or else the pain by which it is accompanied.

When these two principles unite, the statue makes a greater effort to recall what it has ceased to be, and it feels less what it actually is. For its power of feeling being necessarily limited, memory cannot attract a part of this power to itself without leaving less to the sense of smell. Even if the action of this faculty should be so strong as to appropriate to itself the whole power of feeling, the statue will not observe any more the impression made upon its organ, and it will recall its former condition in so

lively a manner that it will believe itself to be still in that condition.

28. But if its actual condition is the happiest it knows, the pleasure induces it to enjoy it by preference. There no longer exists any cause capable of inducing the mind to act strongly enough to overbear the sense of smell to the extent of destroying the feeling in it. Pleasure, on the contrary, concentrates at least the greater part of the attention or of the capacity for feeling upon the present sensation; and if the statue even yet recalls what it has been, it is because the comparison with its present state causes it to enjoy its happiness still more.

29. Here then are two of the effects of memory: the one is a sensation which is recalled as strongly as if it were acting upon the organ itself; the other is a sensation of which naught remains but a faint recollection.

There are thus in the action of this faculty of memory two degrees which we can establish: the weaker is that in which it causes pleasure in the past to but a slight extent; the other that in which it causes enjoyment of that past just as if the past were the present.

It is called *memory* when it recalls things as past only, and it is called *imagination* when it recalls them so strongly that they appear to be present. Imagination, therefore, is found in our statue, as well as memory, and these two faculties differ in degree only. Memory is the beginning of an imagination which is yet still weak; imagination is memory itself, which has attained the fullest power of which it is susceptible.

Having distinguished two forms of attention in the statue, the one acting through the sense of smell, the other through the memory, we may now note a third, which acts through the imagination, and the peculiarity of which is to stay the impressions of the senses in order to substitute in their place a feeling independent of external objects.

30. Nevertheless when the statue imagines a sensation which it no longer is experiencing, and when it recalls it in as lively a manner as if it were still experiencing it, it is not aware that there exists in itself a cause which produces the same effect as would

be produced by an odoriferous body acting upon its organ of smell. It cannot therefore distinguish, as we do, between imagination and feeling.

31. But we may presume that the imagination of the statue will be more active than is our own. Its power of feeling is wholly concentrated on a single kind of sensation; the whole force of its faculties is devoted solely to odours; nothing can distract it. But we are divided between a multitude of sensations and ideas, which are constantly assailing us, and, devoting to our imagination but a part of our powers, we imagine but feebly. Besides, our senses, continually on their guard against our imagination, warn us constantly of the objects we seek to imagine, while, on the contrary, the imagination of our statue is entirely free to act. Therefore it recalls trustingly an odour which it has enjoyed, and it does actually enjoy it, just as if its sense of smell were affected by it. Finally the ease with which we can put aside things offensive to us, and seek those the enjoyment of which we prize, further contributes to render our imagination lazy. But since our statue can escape from a disagreeable feeling only by imagining strongly a condition of being in which it takes pleasure, its imagination is more exercised by it, and must produce effects out of the power of our own to attain.

32. Yet there is one case in which the action of the statue's imagination is wholly suspended, and even also that of memory. It is when a sensation is so vivid as to fulfil completely the power of feeling. Then the statue is wholly passive. Pleasure becomes for it a species of intoxication, in which there is scarcely any enjoyment, and pain a crushing in which it scarcely suffers.

33. But the moment the sensation loses some degrees of its intensity, forthwith the faculties of the soul become active once more, and need becomes once again the cause which determines their action.

34. The modifications which must give the greatest pleasure to the statue are not always those it has most recently experienced. They may occur in the beginning or in the middle of the chain of its knowledge, or at the end. Imagination, therefore, is frequently compelled to pass rapidly over intermediate

ideas. It brings nearer the more distant, changes the order they were in in the memory, and out of them forms an entirely new chain.

The connection of ideas does not then follow the same order in its faculties. The more that order it derives from the imagination becomes familiar to the statue, the less will it preserve that order which memory has furnished it with. Thus ideas are connected in innumerable different ways, and often the statue will recall less the order in which it experienced its sensations than the order in which it has imagined them to be.

35. All these series, however, are formed only through the comparisons which have been made between each preceding and each succeeding link in the chain, and through the conclusions which have been drawn concerning their relation to each other. This connection becomes stronger in proportion as the use of the faculties strengthens the habits of recollection and imagination; and this is the reason why we possess the surprising advantage of recognizing sensations we have already experienced.

36. For, indeed, if we cause our statue to smell an odour with which it is familiar, it is a state of being which it has compared, which it has drawn a conclusion from, and which it has linked to some of the parts of the series which its memory is in the habit of reviewing. That is why it concludes that the state in which it finds itself is the same as that in which it formerly found itself. But an odour which it has not yet smelled does not come within this case, and therefore must strike it as quite new.

37. It is needless to point out that when it recognizes a state of being it does so without being able to account for the fact. The cause of a phenomenon of this sort is so difficult to make out that all men who do not know how to observe and analyze what is going on within them, are unable to perceive it.

38. But when the statue goes on a long time without thinking of a state of being, what becomes, during that period, of the idea it has formed of that state? When, later, that idea is recalled by the memory, whence does it spring? Is it in the soul or in the body that it has been preserved? In neither.

It is not in the soul, since an alteration in the brain is sufficient to destroy the power of recalling the idea.

It is not in the body. The physical cause alone could be preserved there, and for that it would be necessary to suppose that the brain would remain precisely in the condition into which it was brought by the sensation which the statue remembers. But how can that supposition be maintained in view of the continual movements of the mind? How can it be maintained, especially when one considers the innumerable ideas stored in the memory? The phenomenon may be explained in a much simpler way.

I experience a given sensation when there occurs in one of my organs a movement which is transmitted to the brain. If the same movement originates in the brain and is transmitted to the organ, I believe I experience a sensation which I do not really experience: it is an illusion. But if the movement begins and ends in the brain, I remember the sensation I have experienced.

When the statue recalls an idea, then, it is not because the idea has been preserved in the body or in the soul; it is because the movement, which is the physical and occasioning cause of it, is reproduced in the brain. This, however, is not the place to venture on conjectures concerning the mechanism of memory. We preserve the remembrance of our sensations, we recall them, although we have been a long time without thinking of them. To bring this about it is sufficient that they should have strongly impressed themselves upon us, or that we should have experienced them repeatedly. These facts authorize me to suppose that our statue, organized as we are, is, like ourselves, able to remember.

39. We conclude then that it has contracted several habits: the habit of bestowing its attention; the habit of remembering; a third habit of comparing; a fourth of judging; a fifth of imagining; and finally one of recognizing.

40. The same causes which have produced habits are alone capable of maintaining them. I mean that habits will become lost unless they are renewed by actions reiterated from time to time. In that case our statue will recall neither the comparisons

between states of being which it has made, nor the conclusions it has drawn from them, and it will experience a state of being for the third or fourth time without being able to recognize it.

41. But we may ourselves help to maintain the practice of its memory and of all its faculties. It is sufficient to induce it, by different degrees of pleasure or of pain, to cling to its state of being or to escape from it. The skill with which we make use of its sensations will enable us to fortify and extend more and more its habits. There is even ground for conjecturing that the statue will distinguish, in a succession of odours, differences which we fail to note. Compelled to apply all its faculties to a single sort of sensation, may not the statue exhibit more discernment therein than we do?

42. Yet the relations which its judgment can discover are very few in number. It merely is aware that one state of being is the same as a state in which it has already been, or else that it is different; that the one is agreeable, the other disagreeable, and both in a greater or less degree.

But will it distinguish between several odours smelled together? That is a power of discernment which we ourselves acquire only by long practice, and even then within very narrow limits, for there is no one who can recognize by the sense of smell all the components of a sachet. Now it seems to me that any mingling of odours must be a sachet to our statue.

It is the knowledge of odoriferous bodies, as we shall see later, which has taught us to recognize two odours within a third. After having smelled in turn a rose and a jonquil, we smelled them together, and thus learned that the sensation caused in us by these two flowers together is composed of two other sensations. But if the odours be multiplied we can distinguish those only which are strongest, and even then we shall not distinguish these if the mingling has been made so skilfully that no one odour shall prevail over the others. In such a case they appear to pass one into another, like colours ground up together; they unite and mingle so thoroughly that not one of them remains what it originally was, and of many odours one alone remains.

So if our statue, at the first moment of its existence, smells two odours, it will not conclude that it is at one and the same time in two states of being. But let us suppose that having learned to know them separately, it smells them together: will it recognize them? That does not appear probable to me. For, unaware that they come from two different bodies, nothing can lead it to suspect that the sensation it experiences is the sum of two other sensations. Indeed, if neither prevail, it would be the same with us, and if one of the two is fainter, it will merely alter the stronger and they will together seem to be a simple state of being. To convince ourselves of this we need only smell odours which we are not accustomed to refer to separate bodies; I am persuaded that we would not venture to affirm whether they are one odour or several odours. And this is precisely the case of the statue.

Therefore the statue acquires discernment only through the attention it gives at one and the same time to a state of being which it is actually experiencing and to another state which it has previously experienced. Thus its judgments do not bear upon two odours smelled at one and the same time, but upon successive sensations.

CHAPTER III. OF THE DESIRES, THE PASSIONS, LOVE, HATE, HOPE, FEAR AND WILL IN A MAN LIMITED TO THE SENSE OF SMELL

1. We have just seen the character of the various kinds of wants, and that they are the causes of the degrees of intensity with which the faculties of the soul attach themselves to a state of well-being, the enjoyment of which becomes a necessity. Now desire is nothing else than the action of these faculties, when these are directed towards the thing of which we feel the need.

2. Therefore every desire presupposes that the statue conceives of a condition better than the one wherein it finds itself at the time, and that it compares the difference between two states of being succeeding each other. If they differ but little, its suffering is less, in consequence of the deprivation of the mode of being

that it desires; and I give the name of *discomfort* or *slight discontent*, to the feeling it experiences. In such a case both the action of its faculties is less energetic and its desires are less strong. On the contrary, it suffers more if the difference be great, and I give the name of *anxiety*, or even of *torment*, to the impression it then experiences. Therefore the difference between these two states is the measure of the desire, and it is sufficient to remember by how much the action of the faculties gains or loses in intensity in order to know all the degrees of desires.

3. For instance, they are never so violent as when the faculties of the statue tend to a state of well-being the loss of which causes an anxiety the greater in proportion to the difference of that wished-for state from the existing state. In such cases, nothing can distract the statue's attention from that condition: it recalls it, it imagines it; all its faculties are concentrated upon it. Consequently the more it desires it, the more it accustoms itself to desire. In a word, it feels for it what we call a *passion*, that is, a desire which prevents our feeling any other, or at least is the most powerful one.

4. This passion persists so long as the state which is the object of it continues to appear the most agreeable, and so long as the absence of that state is accompanied by the same anxieties. But it is replaced by another passion, if the statue has occasion to become accustomed to another condition to which it will give the preference.

5. From the moment that enjoyment, suffering, need, desire, passion exist in the statue, love and hate exist likewise. For the statue loves a pleasant odour, which it enjoys or desires. It hates a disagreeable odour, which causes it to suffer; finally, it likes less a less agreeable odour, which it would fain exchange for another. In proof of this, it is sufficient to note that to love is always synonymous with to enjoy or to desire, and that to hate is similarly synonymous with suffering from discomfort, from discontent, in the presence of some object.

6. As there may be several gradations in the amount of anxiety caused by the loss of a pleasant object, and in the discontent caused by the sight of an odious one, so may similar gradations

be noted in love and in hate. Indeed we even have words to denote them: such as taste, inclination, tendency, aloofness, repugnance, disgust. Although these words cannot be substituted for the words love, hate, none the less the feelings they express are but the beginnings of these passions; they differ from these merely in being weaker.

7. For the rest, the love of which our statue is capable, is but love of self, or that which bears the name of self-love. For, in truth, it loves but itself, seeing that the things it loves are but its own states of being.

8. Hope and fear spring from the same principle as love and hate.

Our statue, being in the habit of experiencing agreeable or disagreeable sensations, is led to conclude that it can experience further sensations of the same sort. If this conclusion combines with a sensation which pleases, it produces hope; and if it combines with a sensation that displeases, it causes fear. For, in fact, to hope is to flatter one's self that one shall possess a certain good; to fear, is to be threatened by an evil. It may be noted that hope and fear contribute to increase desire. It is from the conflict of these two feelings that the most violent passions arise.

9. The remembrance that it has satisfied some of its desires causes our statue to hope all the more to be able to satisfy other desires, that, unaware of the obstacles which stand in the way, it does not see why what it desires should not be within its power, like what it has desired on other occasions. It is true that the statue cannot make sure of this, but, on the other hand, it has no proof of the contrary. If it more particularly remembers that the same desire which it feels has formerly been followed by enjoyment, it will believe itself capable of realizing it in proportion as its want of it becomes greater. Thus two causes will contribute to inspire it with confidence: the knowledge that it has satisfied such a desire before, and its interest in satisfying it once again. Henceforth the statue will not be satisfied with desiring; it will *will;* for by *will* is meant an absolute desire, such that we consider that a thing we desire is in our power.

CHAPTER IV. OF THE IDEAS OF A MAN LIMITED TO THE SENSE OF SMELL

1. Our statue cannot pass successively through various states of being, some pleasant and some unpleasant to it, without observing that it passes alternately from a condition of pleasure to a condition of pain, or vice versa. In the former are content and enjoyment; in the latter, discontent and suffering. Therefore it preserves in its memory the notions of content and discontent common to several modes of being; and it need then only consider its sensations in these two connections in order to divide them into two classes, in each of which it will learn to distinguish degrees, in proportion as it practices the habit of distinguishing.

2. To abstract, is to separate one idea from another to which it appears to be naturally united. Now when the statue observes that the notions of content and discontent are common to several of the modifications of its state of being, it acquires the habit of separating them from some particular modification, from which it had not at first distinguished them. It therefore forms abstract notions of them, and these notions become general, because they are common to several of its states of being.

3. But when it smells in succession several flowers of the same species, it will always experience one and the same sensation, and will have but one particular notion of the subject. For instance, the perfume of the violet cannot be, for the statue, an abstract notion, common to several flowers, since the statue is not aware of the existence of violets. Therefore it is only the particular notion of a state of being which is proper to the statue. Consequently, all its abstractions are confined to more or less agreeable modifications, and to others more or less disagreeable.

4. So long as the statue had particular notions only, it could desire only such and such a state of being. But so soon as it has abstract notions, its desires, its love, hate, hope, fear, will, may have for their object pleasure or pain in general.

However, that love of well-being in general comes about only

when, among the notions which memory recalls confusedly to the statue, the latter does not yet distinguish what will give it most pleasure; but, so soon as it believes it does perceive it, all its desires tend towards a particular mode of being.

5. The statue being able to distinguish the states of being it experiences has, therefore, some notion of numbers; it has the notion of unity every time it experiences a sensation, or remembers one; and it has the notion of two or of three of these, as often as its memory recalls to it two or three distinct states of being, for it then takes cognizance of itself as having been an odour, or as having been two or three odours in succession.

6. It cannot distinguish between two odours which it smells at one and the same time. Therefore the sense of smell can, of itself, give it only the notion of unity, and the notion of number can come to it from memory alone.

7. But the statue will not carry its knowledge of this subject very far. Like a child which has not learned to count, the statue will be unable to determine the number of its notions if the series of them be at all large.

It seems to me that, in order to ascertain the largest number it is capable of knowing accurately, it is sufficient to consider how far we ourselves could count with the sign *one*. When the amounts formed by the repetition of this sign cannot be grasped at once and distinctly, we have the right to conclude that the precise notions of the numbers which these amounts contain, cannot be acquired by memory alone.

Now, when I say "one and one," I have the notion of two; and when I say "one, one and one," I have the notion of three. But if I had but this single sign with which to express ten, fifteen, twenty, I could never determine the notions of these numbers, for I could not make sure, through memory alone, that I had repeated *one* as many times as each of these numbers requires that I should repeat it. It even seems to me that I could not, by this means, attain to the notion of four, and that I would need to have recourse to some artifice in order to be sure that I had repeated the unit sign neither too seldom nor too often. I would say, for instance, "one, one" and then "one, one," but that

proves that memory does not distinctly grasp four unities at once. Beyond three, therefore, it presents but an indefinite multitude. Those who believe that memory alone can extend our notions farther, will use another number instead of three. It is sufficient, for the purposes of my argument, that there be some number beyond which the memory shows us merely a thoroughly vague multitude. It is the art of signs which has enabled us to carry light farther. But however vast the numbers we can make out, there always remains a multitude which it is not possible to determine, and which is therefore called the *infinite*, but which would have been more accurately called the *indefinite*. That single change in terms would have avoided many errors.

We may therefore conclude that our statue will grasp distinctly three only of these states of being. Beyond that it will perceive a multitude, which will be to it what the pretended notion of the infinite is to us. And indeed the statue will have more reason to be mistaken in this respect, for it is incapable of the reasonings which would clear its error away. Therefore it will see the infinite in that multitude exactly as if it were indeed the infinite.

Finally we note that its idea of unity is an abstract notion, for it feels all its states of being have this general relation that each is distinct from any other.

8. Possessing particular notions and general notions it consequently is acquainted with two kinds of truth.

The odours of each species of flowers are, for the statue, particular notions only, and it will consequently be the same with every truth it perceives when it distinguishes one odour from another.

But it possesses abstract notions of the agreeable state of being and of the disagreeable. On this subject then it will have general truths. It will know, that in general its modifications differ one from another, and that they cause it to experience more or less pleasure or discontent.

But these general notions presuppose in the statue particular notions, since the particular ideas have preceded the abstract ideas.

9. As it is in the habit of being, of ceasing to be, and of again being the same odour, it will conclude, when it is not that odour, that it is capable of again being the odour, and when it is the odour, that it is capable of not being it. Thus it will have occasion to consider its modes of being as being capable of existing or of not existing. This notion of the possible will not, however, carry with it the knowledge of the causes which may produce a given effect; on the contrary, it will presuppose ignorance thereof, and will be founded simply upon an habitual conclusion. When the statue thinks, for instance, that it can cease to be scent of rose and be once more scent of violet, it is not aware that a being external to itself alone causes its sensations. To cause the statue to come to a mistaken conclusion all we need do is to make it smell continually the same odour. True, its imagination may at times make up for it, but only when desire is violent, and even then it does not always succeed.

10. The statue might, possibly, acting upon its habitual conclusions, attain to some notion of the impossible. Accustomed to lose a certain mode of being the moment it enters a different one, it is impossible, according to its way of thinking, that it should be in two states of being at once. The only case in which the statue would believe otherwise is when its imagination would act with force sufficient to recall to it two sensations with the same intensity as if it were really experiencing them. But that can scarcely happen. It is natural that the statue's imagination should conform to the habits it has acquired. So, having experienced its states of being one after the other only, it is in that order only that it will imagine them. And besides it is probable that its memory will not be vigorous enough to make appear present to it two sensations it has had and which it no longer has.

But, what seems to me more probable, is that the statue's habit of concluding that what has happened to it once may happen to it again, contains the notion of the possible. It is difficult to suppose that it has any occasion to form any judgments in which we could find the notion we entertain of the impossible. To bring this about the statue would have to be preoccupied with what it has not yet experienced, while it is far more natural

that it should be entirely taken up with what it is actually experiencing.

11. From the fact that it distinguishes between odours comes the notion of series, for the statue cannot feel that it is ceasing to be what it was without conceiving in the change a duration of two instants.

And as it cannot distinctly grasp more than three odours, so it cannot distinguish more than three instants in any lapse of time. Beyond that point it can see naught but an indefinite series.

If it be supposed that memory can recall to it, distinctly, as many as four, five or six modes of being, it will consequently distinguish four, five or six instants in duration. Every one may frame such hypotheses as he pleases on this point, and substitute them for those to which I have believed it best to give the preference.

12. The transition from one odour to another imparts to our statue the notion of the past only. To have the notion of the future requires, on its part, that it should have experienced repeatedly the same succession of sensations, and that it should have acquired the habit of concluding that a certain modification is bound to follow upon a given one.

Let us take, by way of example, the series of jonquil, rose and violet. So soon as these odours are continually connected in this order, the moment one of them acts upon its sense of smell memory immediately recalls to it the two others in the order they bear to the one smelled. Just as when it smells the scent of the violet the two others will be remembered as having preceded it, and the statue will conceive of a past duration, so, when it smells the scent of the jonquil, the scent of the rose and that of the violet will be recalled as certain to follow, and the statue will conceive a duration yet to come.

13. The scents of the jonquil, the rose and the violet may therefore mark the three instants which the statue perceives in clear fashion. For the same reason, the odours which have come first and those which are in the habit of coming next will mark the instants of time which the statue perceives vaguely in the past and in the future. So, when it shall smell a rose, memory

will recall distinctly the scent of the jonquil and that of the violet, and it will represent to the statue an indefinite duration of time which preceded the instant when it smelled the jonquil, and a definite duration, which must follow that at which it will smell the violet.

14. Perceiving this duration as indefinite, the statue can see in it neither beginning nor end; it cannot, therefore, even suspect the existence of the one or the other. Thus, with regard to the statue, that particular duration is absolute eternity; and the statue feels as if it had always been and were never to cease to be.

In fact, it is not reflection upon the succession of the ideas we have which tells us that we had a beginning and that we shall have an end: it is the attention we bestow upon our fellow-creatures, whom we behold being born and dying. A man who would be acquainted with his own existence only would have no idea of death.

15. The notion of duration, first produced by the succession of impressions upon the organ, is preserved, or reproduced, by the succession of sensations which memory recalls. So, even when the odoriferous bodies cease to act upon the statue, it continues to represent to itself the present, the past and the future. The present, by the state in which it finds itself; the past, by the remembrance of the state in which it has been; the future, because it concludes that having repeatedly experienced the same sensations, it may experience them again.

Therefore there are in the statue two successions or series: that of the impressions made upon the organ, and that of the sensations retraced in the memory.

16. Several impressions may follow each other in the organ while the remembrance of a similar sensation is present in the memory; and several sensations may be successively retraced in the memory while a similar impression is acting upon the organ. In the first case the series of impressions acting upon the sense of smell give the measure of the duration of the remembrance of a sensation; in the second, the succession of sensations which present themselves to the memory give the measure of duration of the impression made upon the sense of smell.

For instance, if, when the statue is smelling a rose, it recalls the scent of the tuberose, of the jonquil, of the violet, it is by the succession of these remembrances in its memory that it judges of the duration of its sensation; and if, while it recalls the odour of the rose, I should present to it rapidly a series of odoriferous bodies, it is by the succession passing within the organ that it judges of the duration of the remembrance of that sensation. Thus it perceives that there is not one of its modifications that cannot last. Duration becomes a relation under which it considers them all in general, and it thus acquires an abstract notion of it.

If, while it is smelling a rose, it recalls successively the odours of the violet, the jasmine or lavender, it will perceive as it were an odour of rose lasting throughout three instants; and if it recalls a series of twenty odours, it will perceive itself as the odour of rose since an indefinite point of time; it will not conclude that it has begun to be; it will believe it has been from all eternity.

17. It follows that it is only a succession of odours transmitted by the organ of smell or renewed by memory which can impart to the statue any notion of duration. It would never have known more than a single instant if the first odoriferous body had acted uniformly upon it, whether for an hour, a day, or longer; or if the action of the body had undergone such delicate changes that the statue had failed to note them.

The case will be the same if, having acquired the notion of duration, it preserves a sensation without having recourse to its memory, without recalling successively some of the states of being through which it has passed. For how could it, in that event, distinguish between the instants of time? And if it does not distinguish between them, how can it perceive duration?

Therefore the notion of duration is not absolute, and when we say that time is going fast or slow, we mean simply that the revolutions by which we measure time are being accomplished more rapidly or more slowly than our ideas follow one another. This may be proved by a hypothesis.

18. If we will imagine a world composed of as many parts as our own but no larger than a nut, it is not to be denied that the

stars would rise and set on it thousands of times in the course of one of our hours, and that, organized as we are, we could not follow their motions. It would be necessary, therefore, that the organs of the minds destined to inhabit that world should be proportioned to such rapid revolutions.

So, while the earth of that little world turned on its axis, and around its sun, the inhabitants would receive as many ideas as we do while our earth revolves in the same way. Therefore their days and their years, it is evident, would seem as long to them as ours do to us.

But supposing another world, as much larger than ours, as ours would be than the one I have just supposed, the inhabitants of that larger world would need to be endowed with organs too slow in their action to note the revolutions of our stars. They would bear the same relation to our world which we would bear to the world no larger than a nut. They would be unable to perceive any succession of movement.

Finally, let us inquire of the inhabitants of these worlds what is the age of each: the inhabitants of the smaller would count by millions of centuries; the inhabitants of the larger, scarcely opening their eyes, would answer that they had just been created.

Therefore the notion of duration is wholly relative; each one judges of it by the succession of his ideas, and it is probable that there are not two men who, in a given space of time, count the same number of instants, for it is to be presumed that there are not two whose memory always retraces ideas with the same rapidity.

Consequently a sensation which would last uniformly for a year, or for a thousand years, for the matter of that, will appear but an instant to our statue; just as an idea lasts but for an instant for us while the inhabitants of the nut-large world are counting up centuries. It is therefore a mistake to suppose that all men count the same number of instants. The presence of an idea, which does not change, being but an instant so far as I am concerned, it follows as a consequence that a single instant in my notion of duration may co-exist with several instants in the notion of duration of another man.

CHAPTER V. THE SLEEP AND DREAMS OF A MAN LIMITED TO THE SENSE OF SMELL

1. Our statue may be reduced to the condition of being merely the remembrance of an odour; then the sense of its existence appears to be lost to it. It feels less that it is existing than that it has existed, and in proportion as memory recalls ideas to it with less intensity, this remnant of feeling becomes weaker yet. Like a light which goes out gradually, the feeling ceases wholly when the faculty of memory becomes entirely inactive.

2. Now, our own experience compels us to believe that exercise must in the end fatigue the memory and the imagination of the statue. Let us therefore consider these faculties at rest, and refrain from exciting them by any sensation: the resultant condition will be that of sleep.

3. If the repose of these faculties be such that they are completely inactive, there is nothing to note, save that the sleep is the soundest possible. If, on the contrary, these faculties continue to act, they will act upon a part only of the notions acquired. A number of links in the chain will be cut out, and the succession of ideas, during sleep, will necessarily differ from the order in a waking state. Pleasure will no longer be the sole cause determining the action of the imagination. This faculty will awaken those ideas only over which it still exercises a measure of power, and it will tend just as frequently to make the statue unhappy as to make it happy.

4. This is the dreaming state: it differs from the waking state only in that the ideas do not preserve the same order and that pleasure is not always the law which governs the imagination. Every dream, therefore, involves the interception of a number of ideas, on which the faculties of the soul are unable to act.

5. Since the statue is unacquainted with any difference between imagining intensely and having sensations, it cannot distinguish any difference between dreaming and waking. Whatever, therefore, it experiences while asleep is as real, so far as it is concerned, as what it has experienced before falling asleep.

CHAPTER VI. OF THE EGO, OR PERSONALITY OF A MAN LIMITED TO THE SENSE OF SMELL

1. Our statue being capable of remembering, it is no sooner one odour than it remembers that it has been another. That is its personality, for if it could say *I*, it would say it at every instant of its own duration, and each time its *I* would comprise all the moments it remembered.

2. True, it would not say it at the first odour. What is meant by that term seems to me to suit only a being which notes in the present moment, that it is no longer what it has been. So long as it does not change, it exists without thought of itself; but as soon as it changes, it concludes that it is the selfsame which was formerly in such another state, and it says *I*.

This observation confirms the fact that in the first instant of its existence the statue cannot form desires, for before being able to say *I wish*, one must have said *I*.

3. The odours which the statue does not remember do not therefore enter into the notion it has of its own person. Being as foreign to its *Ego* as are colours and sounds, of which it has no knowledge, they are, in respect of the statue, as if the statue had never smelled them. Its *Ego* is but the sum of the sensations it experiences and of those which memory recalls to it. In a word, it is at once the consciousness of what it is and the remembrance of what it has been.

CHAPTER VII. CONCLUSIONS FROM THE PRECEDING CHAPTERS

1. Having proved that the statue is capable of being attentive, of remembering, of comparing, of judging, of discerning, of imagining; that it possesses abstract notions, notions of number and duration; that it is acquainted with general and particular truths; that desires are formed by it, that it has the power of passions, loves, hates, wills; and finally that it contracts habits, we must conclude that the mind is endowed with as many facul-

ties when it has but a single organ as when it has five. We shall see that the faculties which appear to be peculiar to us are nothing else than the same faculties which, applied to a greater number of objects, develop more fully.

2. If we consider that to remember, compare, judge, discern, imagine, be astonished, have abstract notions, have notions of duration and number, know general and particular truths, are but different modes of attention; that to have passions, to love, to hate, to hope, to fear and to will are but different modes of desire, and that, finally, attention and desire are in their essence but sensation, we shall conclude that sensation calls out all the faculties of the soul.

3. Lastly, if we consider that there are no absolutely indifferent sensations, we shall further conclude that the different degrees of pleasure and of pain constitute the law according to which the germ of all that we are has developed in order to produce all our faculties.

This principle may be called want, astonishment, or otherwise, but it remains ever the same, for we are always moved by pleasure or by pain in whatever we are led to do by need or astonishment.

The fact is that our earliest notions are pain or pleasure only. Many others soon follow these, and give rise to comparisons, whence spring our earliest needs and our earliest desires. Our researches, undertaken for the purpose of satisfying these needs and desires, cause us to acquire additional notions which in their turn produce new desires. The surprise which makes us feel intensely any extraordinary thing happening to us, increases from time to time the activity of our faculties, and there is formed a chain the links of which are alternately notions and desires, and it is sufficient to follow up this chain to discover the progress of the enlightening of man.

4. Nearly all that I have said about the faculties of the soul, while treating of the sense of smell, I might have said if I had taken any other sense; it is easy to apply all to each of the senses. I have now only to examine what is peculiar to each of them.

. . . .

IMMANUEL KANT
(1724–1804)

THE CRITIQUE OF PURE REASON

*Selections translated from the German * by*
JOHN WATSON

INTRODUCTION

1. *Distinction of Pure and Empirical Knowledge.*

THERE can be no doubt whatever that all our knowledge begins with experience. By what means should the faculty of knowledge be aroused to activity but by objects, which, acting upon our senses, partly of themselves produce ideas in us, and partly set our understanding at work to compare these ideas with one another, and, by combining or separating them, to convert the raw material of our sensible impressions into that knowledge of objects which is called experience? In the order of time, therefore, we have no knowledge prior to experience, and with experience all our knowledge begins.

But, although all our knowledge begins *with* experience, it by no means follows that it all originates *from* experience. For it may well be that experience is itself made up of two elements, one received through impressions of sense, and the other supplied from itself by our faculty of knowledge on occasion of those impressions. If that be so, it may take long practice before our attention is drawn to the element added by the mind, and we learn to distinguish and separate it from the material to which it is applied.

It is, therefore, a question which cannot be lightly put aside, but can be answered only after careful investigation, whether there is any knowledge that is independent of experience, and

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even of all impressions of sense. Such knowledge is said to be *a priori*, to distinguish it from *empirical* knowledge, which has its sources *a posteriori*, or in experience.

The term *a priori* must, however, be defined more precisely, in order that the full meaning of our question may be understood. We say of a man who undermines the foundations of his house, that he might have known *a priori* that it would fall; by which we mean, that he might have known it would fall, without waiting for the event to take place in his experience. But he could not know it completely *a priori;* for it is only from experience that he could learn that bodies are heavy, and must fall by their own weight when there is nothing to support them.

By *a priori* knowledge we shall, therefore, in what follows understand, not such knowledge as is independent of this or that experience, but such as is *absolutely* independent of all experience. Opposed to it is empirical knowledge, or that which is possible only *a posteriori*, that is, by experience. *A priori* knowledge is *pure*, when it is unmixed with anything empirical. The proposition, for instance, that each change has its own cause is *a priori*, but it is not pure, because change is an idea that can be derived only from experience.

4. *The Distinction Between Analytic and Synthetic Judgments.*

There are two ways in which the predicate of an affirmative judgment may be related to the subject. Either the predicate B is already tacitly contained in the subject A, or B lies entirely outside of A, although it is in some way connected with it. In the one case I call the judgment *analytic*, in the other case *synthetic*. Analytic judgments are those in which the predicate is related to the subject in the way of identity, while in synthetic judgments the predicate is not thought as identical with the subject. The former class might also be called *explicative*, because the predicate adds nothing to the subject, but merely breaks it up into its logical elements, and brings to clear consciousness what was already obscurely thought in it. The latter class we may call *ampliative*, as adding in the predicate something that was in no sense thought in the subject, and that no

amount of analysis could possibly extract from it. "Body is extended," for instance, is an analytic judgment. For, to be conscious that extension is involved in the conception signified by the term body, it is not necessary to go outside that conception, but merely to analyze it into the various logical elements that are always thought in it. But in the proposition "Body has weight," the predicate is not implied in the very conception of body, but is a perfectly new idea. The addition of such a predicate, therefore, yields a synthetic judgment. .

. . . .

In *a priori* synthetic judgments, I can get no aid whatever from experience. But, if it is here vain to look to experience for aid, on what other support am I to rely, when I seek to go beyond a certain conception A, and to connect B synthetically with it? Take the proposition, that every event must have its cause. No doubt I cannot have the conception of an event without thinking of something as having a moment of time before it, and from this certain analytic judgments may be derived. But the conception of a cause lies entirely outside the conception of an event, and introduces an idea not contained in it. By what right, then, do I pass from the conception of an event to the totally different conception of a cause? How do I know that there is a necessary connection between the two conceptions, when I can perfectly well think the one without the other? What is here the unknown *x*, which gives support to the understanding, when it seems to have discovered an entirely new predicate B to belong necessarily to the subject A? Experience it cannot be, because the principle has a degree of universality that experience can never supply, as it is supposed to connect the new conception with the old in the way of necessity, and must do so entirely *a priori*, and on the basis of mere conceptions. And yet our speculative *a priori* knowledge must rest upon such synthetic or ampliative propositions.

6. *The Problem of Pure Reason.*

It is of very great advantage, to others as well as to oneself, to be able to bring together various topics of investigation in a

single problem. Now, the true problem of pure reason may be put in this way — *How are a priori synthetic judgments possible?*

Should this question be answered in a satisfactory way, we shall at the same time learn what part reason plays in the foundation and completion of those sciences which contain a theoretical *a priori* knowledge of objects. Thus we shall be able to answer the questions — *How is pure mathematics possible? How is pure physics possible?* As these sciences actually exist, we may fairly ask *how* they are possible; for that they must be possible is proved by the fact that they exist. But as no real progress has as yet been made in the construction of a system that realizes the essential aim of *metaphysic*, it cannot be said that metaphysic exists, and there is, therefore, reason to doubt whether it is possible at all.

Yet in one sense metaphysic may certainly be said to exist, namely, in the sense that there is in man a natural disposition to seek for this kind of knowledge. But as all attempts to answer the questions which human reason is naturally impelled to ask, as, for instance, whether the world had a beginning, or has existed from all eternity, have always and unavoidably ended in self-contradiction; we cannot be satisfied with asserting the mere natural disposition to metaphysical speculation, or, in other words, with the bare ability of pure reason to construct some sort of metaphysic. It must be possible for reason to attain to certainty one way or the other: we must be able to ascertain whether reason can know the objects it seeks, or whether it cannot know them; we must find a conclusive answer to the question whether pure reason is capable or incapable of determining the nature of those objects, and whether, therefore, its domain may with confidence be enlarged beyond the limits of experience, or must be restricted within them. Accordingly, the third and last question, which flows from the general problem of pure reason, may be correctly put in this way: *How is a science of metaphysic possible?* Thus a criticism of reason in the end necessarily leads to science, whereas the dogmatic employment of reason without previous criticism can lead only to groundless

assertions, to which other assertions equally specious may always be opposed, the inevitable result being *scepticism*.

7. Idea and Division of the Critique of Pure Reason.

From all that has been said we get the idea of a unique science, which may be called the Critique of Pure Reason. It is not a *doctrine*, but a *criticism* of pure reason, and its speculative value is entirely negative, because it does not enlarge our knowledge, but only casts light upon the nature of our reason and enables us to keep it free from error. By *transcendental* knowledge I mean all knowledge that is occupied, not with objects, but with the way in which a knowledge of objects may be gained, so far as that is possible *a priori*. What we propose is not a doctrine of pure reason, but a transcendental criticism, the purpose of which is not to extend knowledge, but to rectify it, and to supply a touchstone of the value of all *a priori* knowledge.

This transcendental criticism will afford a complete architectonic plan of transcendental philosophy, as exhibited in its principles, and will therefore give a perfect guarantee of the completeness and stability of the edifice in all its parts.

The Critique of Pure Reason therefore contains all that is essential to the idea of transcendental philosophy, and if we distinguish it from that philosophy, the reason is that it does not carry its analysis beyond what is required in a complete estimate of *a priori* synthetic knowledge.

The main thing to be kept in view in the division of such a science is that no ideas be allowed to enter that are in any way of empirical origin, or, in other words, that it consist only of perfectly pure *a priori* knowledge. Hence, although the principles and fundamental conceptions of morality are *a priori*, they form no part of a transcendental philosophy, because they are necessarily relative to the conceptions of pleasure and pain, desire, and inclination, etc., which in their origin are empirical.

In a systematic division of this science we must have, firstly, a doctrine of the *elements*, secondly, a doctrine of the *method* of pure reason. As to the subdivisions, it seems enough to say at present that there are two stems of human knowledge — Sensi-

bility and Understanding, which may perhaps spring from a common root, unknown to us, and that by the one objects are given, by the other they are thought. Now, if Sensibility is found to contain an *a priori* element, without which objects could not be given to us, an investigation into the nature of that element will be one of the tasks of transcendental philosophy. The doctrine of this transcendental element of sensible perception will form the first part of the science of elements, because we must consider the conditions under which objects of human knowledge are given, before we go on to inquire into the conditions under which they are thought.

TRANSCENDENTAL ÆSTHETIC

I

Sensation is the actual affection of our sensibility, or capacity of receiving impressions, by an object. The perception which refers itself to an object through sensation, is *empirical perception.* The undetermined object of such a perception is a *phenomenon* (Erscheinung).

That element in the phenomenon which corresponds to sensation I call the *matter,* while that element which makes it possible that the various determinations of the phenomenon should be arranged in certain ways relatively to one another is its *form.* Now, that without which sensations can have no order or form, cannot itself be sensation. The matter of a phenomenon is given to us entirely *a posteriori,* but its form must lie *a priori* in the mind, and hence it must be capable of being considered by itself apart from sensation.

This pure form of sensibility is also called *pure perception.* Thus, if from the consciousness of a body, I separate all that the understanding has thought into it, as substance, force, divisibility, etc., and all that is due to sensation, as impenetrability, hardness, colour, etc.; what is left over are extension and figure. These, therefore, belong to pure perception, which exists in the mind *a priori,* as a mere form of sensibility, even when no sensation or object of sense is actually present.

The science of all the *a priori* principles of sensibility I call *Transcendental Æsthetic*, in contradistinction from the science of the principles of pure thought, which I call *Transcendental Logic*.

In Transcendental Æsthetic we shall first of all isolate sensibility, abstracting from all that the understanding contributes through its conceptions, so that we may have nothing before us but empirical perception. In the next place, we shall separate from empirical perception all that belongs to sensation; when there will remain only pure perception, or the mere form of phenomena, the sole element that sensibility can yield *a priori*. If this is done, it will be found that there are two pure forms of sensible perception, which constitute principles of *a priori* knowledge, namely, Space and Time. With these it will now be our business to deal.

Section I. Space

2. *Metaphysical Exposition of Space.*

In external sense we are conscious of objects as outside of ourselves, and as all without exception in space. In space their shape, size, and relative position are marked out, or are capable of being marked out. Inner sense, in which we are conscious of ourselves, or rather of our own state, gives us, it is true, no direct perception of the soul itself as an object; but it nevertheless is the one single form in which our own state comes before us as a definite object of perception; and hence all inner determinations appear to us as related to one another in time. We cannot be conscious of time as external, any more than we can be conscious of space as something within us. What, then, are space and time? Are they in themselves real things? Are they only determinations, or perhaps merely relations of things, which yet would belong to things in themselves even if those things were not perceived by us? Or, finally, have space and time no meaning except as forms of perception, belonging to the subjective constitution of our own mind, apart from which they cannot be predicated of anything whatever? To answer these questions I shall

begin with a metaphysical exposition of space. An *exposition* I call it, because it gives a distinct, although not a detailed, statement of what is implied in the idea of space; and the exposition is *metaphysical*, because it brings forward the reasons we have for regarding space as given *a priori*.

(1) Space is not an empirical conception, which has been derived from external experiences. For I could not be conscious that certain of my sensations are relative to something outside of me, that is, to something in a different part of space from that in which I myself am; nor could I be conscious of them as outside of and beside one another, were I not at the same time conscious that they not only are different in content, but are in different places. The consciousness of space is, therefore, necessarily presupposed in external perception. No experience of the external relations of sensible things could yield the idea of space, because without the consciousness of space there would be no external experience whatever.

(2) Space is a necessary *a priori* idea, which is presupposed in all external perceptions. By no effort can we think space to be away, although we can quite readily think of space as empty of objects. Space we therefore regard as a condition of the possibility of phenomena, and not as a determination dependent on phenomena. It is thus *a priori*, and is necessarily presupposed in external phenomena.

(3) Space is not a discursive or general conception of the relation of things, but a pure perception. For we can be conscious only of a single space. It is true that we speak as if there were many spaces, but we really mean only parts of one and the same identical space. Nor can we say that these parts exist *before* the one all-embracing space, and are put together to form a whole; but we can think of them only as *in* it. Space is essentially single; by the plurality of spaces, we merely mean that because space can be limited in many ways, the general conception of spaces presupposes such limitations as its foundation. From this it follows, that an *a priori* perception, and not an empirical perception, underlies all conceptions of pure space. Accordingly, no geometrical proposition, as, for instance, that any two sides

of a triangle are greater than the third side, can ever be derived from the general conceptions of line and triangle, but only from perception. From the perception, however, it can be derived *a priori*, and with demonstrative certainty.

(4) Space is *presented* before our consciousness as an infinite magnitude. Now, in every conception we certainly think of a certain attribute as common to an infinite number of possible objects, which are subsumed *under* the conception; but, from its very nature, no conception can possibly be supposed to contain an infinite number of determinations *within* it. But it is just in this way that space is thought of, all its parts being conceived to co-exist *ad infinitum*. Hence the original consciousness of space is an *a priori* perception, not a conception.

3. *Transcendental Exposition of Space.*

A transcendental exposition seeks to show how, from a certain principle, the possibility of other *a priori* synthetic knowledge may be explained. To be successful, it must prove (1) that there really are synthetic propositions which can be derived from the principle in question, (2) that they can be so derived only if a certain explanation of that principle is adopted.

Now, geometry is a science that determines the properties of space synthetically, and yet *a priori*. What, then, must be the nature of space, in order that such knowledge of it may be possible? Our original consciousness of it must be perception, for no new truth, such as we have in the propositions of geometry, can be obtained from the mere analysis of a given conception. And this perception must be *a priori*, or, in other words, must be found in us before we actually observe an object, and hence it must be pure, not empirical perception. For all geometrical propositions, as, for instance, that space has but three dimensions, are of demonstrative certainty, or present themselves in consciousness as necessary; and such propositions cannot be empirical, nor can they be derived from judgments of experience.

How, then, can there be in the mind an external perception, which is antecedent to objects themselves, and in which the conception of those objects may be determined *a priori*? Mani-

festly, only if that perception has its seat in the subject, that is, if it belongs to the formal constitution of the subject, in virtue of which it is so affected by objects as to have a direct consciousness or perception of them; therefore, only if perception is the universal *form* of outer sense.

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Inferences.

(*a*) Space is in no sense a property of things in themselves, nor is it a relation of things in themselves to one another. It is not a determination that still belongs to objects even when abstraction has been made from all the subjective conditions of perception. For we never could perceive *a priori* any determination of things, whether belonging to them individually or in relation to one another, antecedently to our perception of those things themselves.

(*b*) Space is nothing but the form of all the phenomena of outer sense. It is the subjective condition without which no external perception is possible for us. The receptivity of the subject, or its capability of being affected by objects, necessarily exists before there is any perception of objects. Hence it is easy to understand, how the form of all phenomena may exist in the mind *a priori*, antecedently to actual observation, and how, as a pure perception in which all objects must be determined, it may contain the principles that determine beforehand the relations of objects when they are met with in experience.

. . . Our exposition, therefore, establishes the *reality*, or objective truth of space, as a determination of every object that can possibly come before us as external; but, at the same time, it proves the *ideality* of space, when space is considered by reason relatively to things in themselves, that is, without regard to the constitution of our sensibility. We, therefore, affirm the *empirical reality* of space, as regards all possible external experience; but we also maintain its *transcendental ideality*, or, in other words, we hold that space is nothing at all, if its limitation to possible experience is ignored, and it is treated as a necessary condition of things in themselves.

Section II. Time

4. *Metaphysical Exposition of Time.*

(1) Time is not an empirical conception, which has been derived from any experience. For we should not observe things to co-exist or to follow one another, did we not possess the idea of time *a priori*. It is, therefore, only under the presupposition of time, that we can be conscious of certain things as existing at the same time (simultaneously), or at different times (successively).

(2) Time is a necessary idea, which is presupposed in all perceptions. We cannot be conscious of phenomena if time is taken away, although we can quite readily suppose phenomena to be absent from time. Time is, therefore, given *a priori*. No phenomenon can exist at all that is not in time. While, therefore, phenomena may be supposed to vanish completely out of time, time itself, as the universal condition of their possibility, cannot be supposed away.

(3) Time is not a discursive, or general conception, but a pure form of sensible perception. Different times are but parts of the very same time. Now, the consciousness of that which is presented as one single object, is perception. Moreover, the proposition, that no two moments of time can co-exist, cannot be derived from a general conception. The proposition is synthetic, and cannot originate in mere conceptions. It therefore rests upon the direct perception and idea of time.

(4) The infinity of time simply means, that every definite quantity of time is possible only as a limitation of one single time. There must, therefore, be originally a consciousness of time as unlimited. Now, if an object presents itself as a whole, so that its parts and every quantity of it can be represented only by limiting that whole, such an object cannot be given in conception, for conceptions contain only partial determinations of a thing. A direct perception must therefore be the foundation of the idea of time.

5. *Transcendental Exposition of Time.*

Apodictic principles which determine relations in time, or axioms of time in general, are possible only because time is the necessary *a priori* condition of all phenomena. Time has but one dimension; different times do not co-exist but follow one another, just as different spaces do not follow one another but co-exist. Such propositions cannot be derived from experience, which never yields strict universality or demonstrative certainty. If they were based upon experience, we could say only, that it has ordinarily been observed to be so, not that it must be so. Principles like these have the force of rules, that lay down the conditions without which no experience whatever is possible: they are not learned from experience, but anticipate what experience must be.

Let me add here that change, including motion or change of place, is conceivable only in and through the idea of time. Were time not an inner *a priori* perception, we could not form the least idea how there should be any such thing as change. Take away time, and change combines in itself absolutely contradictory predicates. Motion, or change of place, for instance, must then be thought of as at once the existence and the non-existence of one and the same thing in the same place. The contradiction disappears, only when it is seen that the thing has those opposite determinations one after the other. Our conception of time as an *a priori* form of perception, therefore explains the possibility of the whole body of *a priori* synthetic propositions in regard to motion that are contained in the pure part of physics, and hence it is not a little fruitful in results.

6. *Inferences.*

(*a*) Time is not an independent substance nor an objective determination of things, and hence it does not survive when abstraction has been made from all the subjective conditions of perception. Were it an independent thing, it would be real without being a real object of consciousness. Were it a determination or order of things as they are in themselves, it could not

precede our perception of those things as its necessary condition, nor could it be known by means of synthetic judgments. But the possibility of such judgments becomes at once intelligible if time is nothing but the subjective condition, without which we can have no perception whatever. For in that case we may be conscious of this form of inner perception before we are conscious of objects, and therefore *a priori*.

(*b*) Time is nothing but the form of inner sense, that is, of the perception of ourselves and our own inner state. As it has no influence on the shape or position of an object, time cannot be a determination of outer phenomena as such; what it does determine is the relation of ideas in our own inner state. And just because this inner perception has no shape of its own, we seek to make up for this want by analogies drawn from space. Thus, we figure the series of time as a line that proceeds to infinity, the parts of which form a series; and we reason from the properties of this line to all the properties of time, taking care to allow for the one point of difference, that the parts of the spatial line all exist at once, while the parts of the temporal line all follow one after the other. Even from this fact alone, that all the relations of time may thus be presented in an external perception, it would be evident that time is itself a perception.

(*c*) Time is the formal *a priori* condition of all phenomena without exception. Space, as the pure form of all external phenomena, is the *a priori* condition only of external phenomena. But all objects of perception, external as well as internal, are determinations of the mind, and, from that point of view, belong to our inner state. And as this inner state comes under time, which is the formal condition of inner perception, time is an *a priori* condition of all phenomena: it is the immediate condition of inner phenomena, and so the mediate condition of outer phenomena. Just as I can say, *a priori*, that all external phenomena are in space, and are determined *a priori* in conformity with the relations of space, so, from the principle of the inner sense, I can say quite generally that all phenomena are in time, and stand necessarily in relations of time.

. . . .

We see, then, that time is empirically real, or is objectively true in relation to all objects that are capable of being presented to our senses. And as our perception always is sensuous, no object can ever be presented to us in experience, which does not conform to time as its condition. On the other hand, we deny to time all claim to absolute reality, because such a claim, in paying no heed to the form of sensible perception, assumes time to be an absolute condition or property of things. Such properties, as supposed to belong to things in themselves, can never be presented to us in sense. From this we infer the *transcendental ideality* of time; by which we mean that, in abstraction from the subjective conditions of sensible perception, time is simply nothing, and cannot be said either to subsist by itself, or to inhere in things that do so subsist.

. . . .

Conclusion of the Transcendental Æsthetic.

We have, then, in the Transcendental Æsthetic, one of the elements required in the solution of the general problem of transcendental philosophy: *How are a priori synthetic propositions possible?* Such propositions rest upon space and time, which are pure *a priori* perceptions. To enable us to go beyond a given conception, in an *a priori* judgment, we have found that something is needed, which is not contained in the conception, but in the perception corresponding to it, something therefore that may be connected with that conception synthetically. But such judgments, as based upon perception, can never extend beyond objects of sense, and therefore hold true only for objects of possible experience.

TRANSCENDENTAL LOGIC

1. *General Logic.*

There are two ultimate sources from which knowledge comes to us: either we receive ideas in the form of impressions, or, by our spontaneous faculty of conception, we know an object by means of those ideas. In the former case, the object is *given* to

us; in the latter case, it is *thought* in relation to the impressions that arise in our consciousness. Perception and conception, therefore, are the two elements that enter into all our knowledge. To every conception some form of perception corresponds, and no perception yields knowledge without conception. . . .

If *sensibility* is the *receptivity* of the mind in the actual apprehension of some impression, *understanding* is the *spontaneity* of knowledge, or the faculty that of itself produces ideas. We are so constituted that our *perception* always is sensuous; or it shows merely the manner in which we are affected by objects. But we have also *understanding*, or the faculty of thinking the object of sensuous perception. Neither of these is to be regarded as superior to the other. Without sensibility no object would be given to us, without understanding none would be thought. Thoughts without content are empty, perceptions without conceptions are blind. It is therefore just as necessary to make our conceptions sensuous, that is, to add the object to them in perception, as it is to make our perceptions intelligible, that is, to bring them under conceptions. Neither of these faculties or capacities can do the work of the other. Understanding can perceive nothing, the senses can think nothing. Knowledge arises only from their united action. But this is no reason for confusing the function of either with that of the other, it is rather a strong reason for carefully separating and distinguishing the one from the other. Hence it is, that we distinguish Æsthetic, as the science of the universal rules of sensibility, from Logic which is the science of the universal rules of understanding.

2. *Transcendental Logic.*

Pure general logic, then, abstracts from all the content of knowledge, or what is the same thing, from all relation of knowledge to its objects, and considers merely the logical form implied in the relation of one element of knowledge to another, or the universal form of thought. Now, we have learned from the Transcendental Æsthetic that there are pure as well as empirical perceptions, and it may well be, that a similar distinction obtains between the pure and the empirical thought of objects.

In that case, there will be a logic that does not abstract from all the content of knowledge. Containing merely the rules of the pure thought of an object, it will exclude all knowledge, the content of which is empirical. It will also refer our knowledge of objects to its origin, in so far as that origin cannot be ascribed to objects themselves.

Let us suppose, then, that there are conceptions which relate to objects *a priori*, but which, as mere functions of pure thought, stand to objects in quite a different relation from that in which perceptions stand to them, whether these are pure or sensuous. As these conceptions will be of neither empirical nor æsthetic origin, we get the idea of a science of pure understanding and pure reason, the aim of which is to examine into the knowledge which we obtain by thinking objects completely *a priori*. Such a science, as setting forth the origin, the limit, and the objective validity of pure conceptions, we must call *Transcendental Logic*.

4. *Division of Transcendental Logic into Analytic and Dialectic.*

Just as in Transcendental Æsthetic we isolated the sensibility, so in Transcendental Logic we shall isolate the understanding, and throw into relief that element in our knowledge which has its origin in the understanding alone. This pure element can be employed in actual knowledge, only on condition that objects are presented in perception to which it may be applied. For, without perception, the pure element of knowledge has no object, and therefore remains perfectly empty. That part of Transcendental Logic which sets forth the pure element in knowledge that belongs to understanding, and the principles without which no object whatever can be thought, is Transcendental Analytic. It is a logic of truth, because no knowledge can contradict it without losing all content, that is, all relation to an object, and therefore all truth. But there is a very seductive and deceptive tendency to employ that pure knowledge of understanding and those principles by themselves, and to apply them even beyond the limits of experience. Only in experience, however, can any matter or object be found to which the pure conceptions of understanding may be applied. There is thus a danger that under-

standing, with a mere show of rationality, may make a material use of its purely formal principles, and pass judgments upon all objects without distinction, whether they are given to us or not, and perhaps even although they cannot be given to us at all. That which is merely a canon for the criticism of understanding in its empirical use, is misused, when it is supposed to be an organon that may be employed universally and without restriction, and when it permits understanding to venture upon synthetic judgments about objects in general, and to pronounce and decide upon them. Pure understanding is then employed dialectically. The second part of Transcendental Logic must therefore consist of a criticism of dialectical illusion. It is called Dialectic, not because it is an art of producing illusion dogmatically — a favourite art of too many metaphysical jugglers — but because it is a criticism of understanding and reason in their hyperphysical use; a criticism, the aim of which is to expose their specious and groundless pretensions to the discovery and extension of knowledge through purely transcendental principles, and to preserve understanding from all sophistical illusion.

TRANSCENDENTAL ANALYTIC

BOOK I. ANALYTIC OF CONCEPTIONS

Chapter I. Guiding-Thread for the Discovery of the Categories

The first part of Transcendental Analytic deals with the *conceptions*, the second part with the *judgments* of pure understanding.

It is the privilege as well as the duty of transcendental philosophy, to proceed in the search for its conceptions upon a definite principle; for these conceptions spring from the understanding pure and unmixed, and must therefore be connected together in the unity of a single conception or idea. This one fundamental conception is a systematic principle, by the applications of which we may be certain *a priori* that we have found out all the pure conceptions of understanding, and have assigned to each its proper place in the whole system.

Section I. — The Logical Use of Understanding.

Understanding has already been defined, negatively, as a non-sensuous faculty of knowledge. Now, as without sensibility we can have no perception, understanding cannot be a faculty of perception. But, apart from perception, the only other mode of obtaining knowledge is by means of conceptions. Therefore the knowledge that is due to understanding, or at least to human understanding, is a knowledge by means of conceptions; it is not perceptive, but discursive. All perceptions, as sensuous, rest upon affections, whereas conceptions rest upon functions. By function I mean the unity of act, in which various ideas are brought under a common idea. Conceptions are based on the spontaneity of thought, sensuous perceptions on the receptivity of impressions. Now the only use that understanding can make of these conceptions is to judge by means of them. And, as without perception there is no direct consciousness of an object, a conception is never related directly to an object, but always indirectly, through a perception or through another conception. Judgment is therefore the indirect knowledge of an object, or the knowledge of knowledge. In every judgment there is a conception which holds true of various ideas, and, among others, of one which is directly referred to an object. Thus, in the judgment that all bodies are divisible, the conception of divisibility applies to various other conceptions, but it is in an especial way related to the conception of body, as this again is related to certain objects that we directly perceive. Of these objects we are therefore conscious only indirectly in the conception of divisibility. Accordingly, all judgments are functions of unity, because they do not consist in the direct knowledge of an object, but bring that and other knowledge under the unity of a higher and more comprehensive conception. And as we can reduce all acts of understanding to judgments, understanding itself may be said to be a *faculty of judgment.* For, as we have seen above, understanding is the faculty of thought. To think is to know by means of conceptions. But conceptions, as predicates of possible judgments, are relative to the idea of an object not yet

determined. By the conception of body is meant something — metal, for instance — which may be known by means of that conception. Body is a *conception*, just because it contains under it other determinations by means of which it may be referred to actual objects. It is thus the predicate of a possible judgment, such as, that every metal is a body. We may, therefore, find out all the possible functions of judgment if we can but tell what are all the possible functions of unity in judgment. And this, as we shall see in the next section, can quite readily be done.

Section II. — 9. The Logical Function of Understanding in Judgment.

If we abstract from all the content of a judgment, and only pay heed to the mere form of understanding, we find that the functions of thought in judgment may be brought under four heads, each of which contains three subdivisions. Thus we get the following table : —

1. *Quantity of Judgments.*

Universal.
Particular.
Singular.

2. *Quality.*

Affirmative.
Negative.
Infinite.

3. *Relation.*

Categorical.
Hypothetical.
Disjunctive.

4. *Modality.*

Problematic.
Assertoric.
Apodictic.

Pure synthesis, viewed in its most general aspect, is the pure conception of understanding. By this pure synthesis I understand that which rests upon a basis of *a priori* synthetic unity. Thus in arithmetical addition, as is readily seen in the case of larger numbers, the synthesis conforms to a conception, because it proceeds on a common basis of unity, as, for instance, the de-

cade. By this conception the unity in the synthesis of a complex is made necessary.

By analysis various ideas are brought under a single conception, as is shown in general logic. But it belongs to transcendental logic to tell us how the *pure synthesis of ideas* is brought to conceptions. The first element that enters into the knowledge of all objects *a priori* is the complex content of pure perception. The second element is the synthesis of this content by imagination. But as even this is not enough to constitute knowledge, a third element is supplied by understanding, in the conceptions which give *unity* to this pure synthesis, and which consist solely in the consciousness of this necessary synthetic unity.

The same function which gives unity to various ideas in a *judgment* also gives unity to the mere synthesis of various ideas in a *perception;* and this synthesis, in its most general expression, is the pure conception of understanding. Understanding at once gives analytic unity to conceptions, and synthetic unity to the complex content of perception; and indeed the logical form of judgment presupposes and rests upon the very same acts of thought as those by which a transcendental content is given to the various determinations of our consciousness. Hence it is that the pure conceptions of understanding, as they are fitly called, apply to objects *a priori,* and therefore do not fall within the view of general logic.

In this way there arises exactly the same number of pure conceptions of understanding, applying *a priori* to all objects of perception, as there are logical functions of judgments in the preceding table; for those functions completely specify understanding, and give a perfect measure of its powers. We shall call the pure conceptions *categories*, after Aristotle, because our object is the same as his, although our method and results are widely different.

TABLE OF CATEGORIES

1. *Quantity.*

Unity.
Plurality.
Totality.

2. *Quality.*	3. *Relation.*
Reality.	Inherence and Subsistence (*substantia et accidens*).
Negation.	Causality and Dependence (cause and effect).
Limitation.	Community (reciprocity between the active and the passive).

4. *Modality.*

Possibility	-	Impossibility.
Existence	-	Non-existence.
Necessity	-	Contingency.

This, then, is a list of all the primary pure conceptions of synthesis that understanding contains within itself *a priori*. Because it contains these pure conceptions, it is called pure understanding, and only by them can it understand anything in the complex content of perception, that is, think an object. The table has not been left to the uncertain suggestions of empirical induction, but has been drawn up systematically, on the basis of a single principle, namely, the faculty of judgment, or, what is the same thing, the faculty of thought.

II.

The table of categories suggests some nice points, which, perhaps, might be found to have an important bearing on the scientific form of all knowledge of reason. (1) The four classes of categories naturally fall into two groups; those in the first group being concerned with objects of perception, pure as well as empirical, while those in the second group are concerned with the existence of those objects, as related either to one another or to understanding. The first may be called the *mathematical*, the second the *dynamical* categories. The former, as is obvious, have no correlates, the latter have correlates. This distinction must have some ground in the nature of understanding. (2) It is also suggestive that the number of categories in each class is three, because usually all *a priori* division must be by dichotomy. To this it must be added that the third category in each class

arises from the union of the second category with the first. Thus *totality* or *allness* is just *plurality* regarded as *unity*, *limitation* is *reality* combined with *negation*, *community* is *causality* in which two *substances* mutually determine one another, and lastly, *necessity* is just *existence* given by mere *possibility* itself.

Chapter II. Deduction of the Categories

13. *Principles of a Transcendental Deduction.*

There is a distinction in law between the question of right (*quid juris*) and the question of fact (*quid facti*). Both must be proved, but proof of a right or claim is called its *deduction*. Now, among the variety of conceptions that make up the very mixed web of human knowledge, there are certain conceptions that put in a claim for use entirely *a priori*, and this claim of course stands in need of deduction. It is useless to refer to the fact of experience in justification of such a claim, but at the same time we must know how conceptions can possibly refer to objects which yet they do not derive from experience. An explanation of the manner in which conceptions can relate *a priori* to objects, I call a *transcendental deduction;* and from it I distinguish an *empirical deduction*, which simply tells us how a conception has been acquired by experience and reflection on experience. The former proves our right to the use of a certain conception, the latter merely points out that as a matter of fact it has come into our possession in a certain way.

. . . .

The transcendental deduction of all *a priori* conceptions must therefore be guided by the principle, that these conceptions must be the *a priori* conditions of all possible experience. Conceptions which make experience possible are for that very reason necessary. An analysis of the experience in which they occur would not furnish a deduction of them, but merely an illustration of their use. Were they not the primary conditions of all the experience in which objects are known as phenomena, their relation to even a single object would be utterly incomprehensible

Section II. — A Priori Conditions of Experience.[1]

If consciousness were broken up into a number of mutually repellent states, each isolated and separated from the rest, knowledge would never arise in us at all, for knowledge is a whole of related and connected elements. When, therefore, I call sensible perception a synopsis, in order to mark the complexity of its content, it must be remembered that in this synopsis a certain synthesis is implied, and that knowledge is possible only if *spontaneity* is combined with *receptivity*. This is the reason why we must say that in all knowledge there is a threefold synthesis: firstly, the *apprehension* in perception of various ideas, or modifications of the mind; secondly, their *reproduction* in imagination; and, thirdly, their *recognition* in conception. These three forms of synthesis point to three sources of knowledge, which make understanding itself possible, and through it all experience as an empirical product of understanding.

1. *Synthesis of Apprehension in Perception.*

Whatever may be the origin of our ideas, whether they are due to the influence of external things or are produced by internal causes, whether as objects they have their source *a priori* or in experience, as modifications of the mind they must belong to the inner sense. All knowledge is, therefore, at bottom subject to time as the formal condition of inner sense, and in time every part of it without exception must be ordered, connected, and brought into relation with every other part. This is a general remark, which must be kept in mind in the whole of our subsequent inquiry.

We should not be conscious of the various determinations that every perception contains within itself were we not, in the succession of our impressions, conscious of time. If each feeling were limited to a single moment, it would be an absolutely individual unit. In order that the various determinations of a perception, as, for instance, the parts of a line, should form a unity, it is necessary that they should be run over and held to-

[1] All that comes under this heading is taken from the *first* edition of the *Critique of Pure Reason* and forms what is called in the preface the "subjective deduction."

gether by the mind. This act I call the *synthesis of apprehension.* It is *apprehension,* because it goes straight to perception; it is *synthesis,* because only by synthesis can the various elements of perception be united in one subject of consciousness.

Now, this synthesis of apprehension must be employed *a priori* also, or in relation to determinations not given in sensible experience. Otherwise we should have no consciousness of space and time *a priori,* for these can be produced only by a synthesis of the various determinations that are presented by sensibility in its original receptivity. There is therefore a pure synthesis of apprehension.

2. *Synthesis of Reproduction in Imagination.*

. . . .

There must be something which makes the reproduction of phenomena possible at all, something which is the *a priori* ground of a necessary synthetic unity. That this is so, we may at once see, if we reflect that phenomena are not things in themselves, but are merely the play of our own ideas, and therefore at bottom determinations of the inner sense. Now, if we can show that even our purest *a priori* perceptions can yield knowledge, only in so far as they involve such a combination as makes a thoroughgoing synthesis of reproduction possible, we may conclude that this synthesis of imagination, being prior to all experience, rests upon *a priori* principles. We must then assume a pure transcendental synthesis as the necessary condition of all experience, for experience is impossible unless phenomena are capable of being reproduced. Now, if I draw a line in thought, or think of the time from one day to another, or even think of a certain number, it is plain that I must be conscious of the various determinations one after the other. But if the earlier determinations — the prior parts of the line, the antecedent moments of time, the units as they arise one after the other — were to drop out of my consciousness, and could not be reproduced when I passed on to the later determinations, I should never be conscious of a whole; and hence not even the simplest and most elementary idea of space or time could arise in my consciousness.

The synthesis of reproduction is therefore inseparably bound up with the synthesis of apprehension. And as the synthesis of apprehension is the transcendental ground of the possibility of all knowledge — of pure *a priori* as well as empirical knowledge — the reproductive synthesis of imagination belongs to the transcendental functions of the mind, and may therefore be called the transcendental faculty of imagination.

3. *Synthesis of Recognition in Conception.*

. . . .

There can be no knowledge without a conception, however indefinite or obscure it may be, and a conception is in form always a universal that serves as a rule. The conception of body, for instance, as a unity of the various determinations thought in it, serves as a rule in our knowledge of external phenomena. Now, it is always a transcendental condition that lies at the foundation of that which is necessary. There must, therefore, be a transcendental ground of the unity of consciousness in the synthesis of the various determinations implied in every perception; and this ground must be necessary to the conception of any object whatever, and therefore to the conception of every object of experience. In no other way can there be any object for our perceptions; for the object is nothing but that something = x, the conception of which involves necessity of synthesis.

No knowledge whatever, no unity and connection of objects, is possible for us, apart from that unity of consciousness which is prior to all data of perception, and without relation to which no consciousness of objects is possible. This pure, original, unchangeable consciousness I call *transcendental apperception.* That this is the proper name for it is evident, were it only that even the purest objective unity, that of the *a priori* conceptions of space and time, is possible only in so far as perceptions are related to it. The numerical unity of this apperception is, therefore, just as much the *a priori* foundation of all conceptions as the various determinations of space and time are the *a priori* foundation of the perceptions of sense.

It is this transcendental unity of apperception which connects all the possible phenomena that can be gathered together in one experience, and subjects them to laws. There could be no such unity of consciousness were the mind not able to be conscious of the identity of function, by which it unites various phenomena in one knowledge. The original and necessary consciousness of the identity of oneself is at the same time the consciousness of a necessary unity in the synthesis of all phenomena according to conceptions. These conceptions are necessary rules, which not only make phenomena capable of reproduction, but determine perception as perception of an object, that is, bring it under a conception of something in which various determinations are necessarily connected together. It would be impossible for the mind to think itself as identical in its various determinations, and indeed to think that identity *a priori*, if it did not hold the identity of its own act before its eyes, and if it did not, by subjecting to a transcendental unity all the synthesis of empirical apprehension, make the connection of the various determinations implied in that synthesis possible in accordance with *a priori* rules.

16. *The Original Synthetic Unity of Apperception.*[1]

The "*I think*" must be capable of accompanying all my ideas; for, otherwise, I should be conscious of something that could not be thought; which is the same as saying, that I should not be conscious at all, or at least should be conscious only of that which for me was nothing. Now, that form of consciousness which is prior to all thought, is *perception*. Hence, all the manifold determinations of perception have a necessary relation to the "*I think*" in the subject that is conscious of them. The "*I think*," however, is an act of *spontaneity*, which cannot possibly be due to sense. I call it *pure apperception*, to distinguish it from *empirical apperception*. I call it also the *original apperception*, because it is the self-consciousness which produces the "*I think*." Now, the "*I think*" must be capable of accompanying all other

[1] What follows (16–27) constitutes the "objective deduction" of the categories, as it appears in the *second* edition of the *Critique*.

ideas, and it is one and the same in all consciousness; but there is no other idea beyond the "*I think*," to which self-consciousness is bound in a similar way. The unity of apperception I call also the *transcendental unity* of self-consciousness, to indicate that upon it depends the possibility of *a priori* knowledge. For, the various determinations given in a certain perception would not all be in my consciousness, if they did not all belong to one self-consciousness. True, I may not be aware of this, but yet as they are determinations of my consciousness, they must necessarily conform to the condition, without which they are not *capable* of standing together in one universal self-consciousness. In no other way would they all without exception be mine. From this original combination important consequences follow.

The absolute identity of apperception in relation to all the determinations given in perception, involves a synthesis of those determinations, and is possible only through consciousness of the synthesis. For, the empirical consciousness, which accompanies each determination as it arises, is in itself broken up into units, and is unrelated to the one identical subject. Relation to a single subject does not take place when I accompany each determination with consciousness, but only when I add one determination to the other, and am conscious of this act of synthesis. It is only because I am capable of combining *in one consciousness* the various determinations presented to me, that I can become aware that in every one of them the consciousness is the same. The *analytic* unity of apperception is, therefore, possible only under presupposition of a certain *synthetic* unity. The thought, that the determinations given in a perception all belong to me, is the same as the thought, that I unite them, or at least that I am capable of uniting them in one self-consciousness. This does not of itself involve a *consciousness* of *the synthesis of* determinations, but it presupposes the possibility of that consciousness. It is only because I am capable of grasping the various determinations in one consciousness, that I can call them all mine; were it not so, I should have a self as many-coloured and various as the separate determinations of which I am conscious. Synthetic unity of the various determinations of perception as given *a*

priori, is therefore the ground of that identity of apperception itself, which precedes *a priori* every definite act of thought. Now, objects cannot combine themselves, nor can understanding learn that they are combined by observing their combination. All combination is the work of understanding, and in fact understanding is itself nothing but the faculty of combining *a priori*, and bringing under the unity of apperception, the various determinations given in perception. The unity of apperception is, therefore, the supreme principle of all our knowledge.

. . . .

20. *All Sensuous Perceptions stand under the Categories as Conditions under which alone their Various Determinations can come together in one Consciousness.*

The various determinations given in a sensuous perception stand under the original synthetic unity of apperception, because in no way could there possibly be any *unity* of perception. But that act of understanding, by which the determinations given in consciousness, whether these are perceptions or conceptions, are brought under a single apperception, is the logical function of the judgment. Hence, all the elements given in an empirical perception are *determined* by one of the logical functions of judgment, and thus brought into one consciousness. But the categories are just the functions of judgment, in so far as these are applied in determination of the various elements of a given perception. Therefore, the various determinations in a given perception necessarily stand under the categories.

22. *The Category has no Other Application in Knowledge than to Objects of Experience.*

To *think* an object is not the same thing as to *know* it. Knowledge involves two elements: firstly, the conception or category, by which an object in general is thought; secondly, the perception by which it is given. If no perception could be given, corresponding to the conception, I should no doubt be able to think an object so far as its form was concerned, but as there would be no object in which that form was realized, I could not possibly

have knowledge of any actual thing. So far as I could know there would be nothing, and could be nothing, to which my thought might be applied. Now, the Æsthetic has shown to us that all the perception that we can have is sensuous; hence the thought of an object in general, by means of a pure conception of understanding, can become knowledge, only by being brought into relation with objects of sense. Sensuous perception is either the pure perception of space and time, or the empirical perception of that which is directly presented through sensation as actually in space and time. By the determination of space and time themselves, we can obtain that *a priori* knowledge of objects which mathematics supplies. But this knowledge is only of the form of phenomena, and it is still doubtful if actual things must be perceived in this form. Mathematical conceptions, therefore, can be called knowledge, only if it is presupposed that there are actual things which cannot be presented to us except under the form of that pure sensuous perception. Now, *things in space and time* are given to us only through empirical observation, that is, in perceptions that are accompanied by sensation. Hence, the pure conceptions of understanding, even if they are applied to *a priori* perceptions, as in mathematics, do not yield a knowledge of things. Before there can be any knowledge, the pure perceptions, and the conceptions of understanding through the medium of pure perceptions, must be applied to empirical perceptions. The categories, therefore, give us no knowledge of actual things, even with the aid of perception, except in so far as they are capable of being applied to *empirical perception.* In other words, they are merely conditions of the possibility of *empirical knowledge.* Now, such knowledge is called *experience.* Hence the categories have a share in the knowledge of those things only that are objects of possible experience.

27. *Result of the Deduction of the Categories.*

We cannot *think* an object without categories; we cannot *know* an object so thought without perceptions that correspond to categories. Now, all our perceptions are sensuous, and therefore all our knowledge of objects that are presented in percep-

tion is empirical. But empirical knowledge is experience. Hence there can be no *a priori* knowledge, except of objects that are capable of entering into experience.

But although such knowledge is limited to objects of experience, it is not therefore altogether derived from experience. For pure perceptions as well as pure conceptions are elements in knowledge, and both are found in us *a priori*. There are only two ways in which we can account for a necessary coincidence of the data of experience with the conceptions which we form of its objects: either that experience must make the conceptions possible, or the conceptions must make experience possible. The former supposition is inconsistent with the nature of the categories, not to speak of pure sensuous perception; for the categories, as *a priori* conceptions, are independent of experience, and to derive them from experience would be a sort of *generatio aequivoca*. The alternative supposition, which involves what may be called an epigenesis of pure reason, must therefore be adopted, and we must hold that the categories, as proceeding from understanding, contain the grounds of the possibility of any experience whatever.

Short Statement of the Deduction.

What has been shown in the deduction of the categories is that the pure conceptions of understanding, on which all theoretical *a priori* knowledge is based, are principles that make experience possible. In other words, they are principles for the general *determination* of phenomena in space and time, a determination that ultimately flows from the principle of the *original* synthetic unity of apperception as the form of understanding in relation to space and time, the original forms of sensibility.

THE CRITIQUE OF PURE REASON*

[*Continued*]

Translated from the German by

F. MAX MÜLLER

Book II.—ANALYTIC OF PRINCIPLES

INTRODUCTION. OF THE TRANSCENDENTAL FACULTY OF JUDGMENT

If the understanding is explained as the faculty of rules, the faculty of judgment consists in performing the subsumption under these rules, that is, in determining whether anything falls under a given rule (*casus datae legis*) or not. General logic contains no precepts for the faculty of judgment and cannot contain them. For as it takes no account of the contents of our knowledge, it has only to explain analytically the mere form of knowledge in concepts, judgments, and syllogisms, and thus to establish formal rules for the proper employment of the understanding. . . . But although general logic can give no precepts to the faculty of judgment, the case is quite different with transcendental logic, so that it even seems as if it were the proper business of the latter to correct and to establish by definite rules the faculty of the judgment in the use of the pure understanding. . . .

What distinguishes transcendental philosophy is, that besides giving the rules (or rather the general condition of rules) which are contained in the pure concept of the understanding, it can at the same time indicate *a priori* the case to which each rule may be applied. The superiority which it enjoys in this respect over all other sciences, except mathematics, is due to this, that it treats of concepts which are meant to refer to their objects *a priori*, so that their objective validity cannot be proved *a posteriori*.

* Reprinted from Immanuel Kant's *Critique of Pure Reason*, translated by F. Max Müller, London, Macmillan & Co. Ltd., 1881, vol. ii.

Our transcendental doctrine of the faculty of judgment will consist of two chapters. The first will treat of the sensuous condition under which alone pure concepts of the understanding can be used. This is what I call the *schematism* of the pure understanding. The second will treat of the synthetical judgments, which can be derived *a priori* under these conditions from pure concepts of the understanding, and on which all knowledge *a priori* depends. It will treat, therefore, of the principles of the pure understanding.

CHAPTER I. THE SCHEMATISM OF THE PURE CONCEPTS

In comprehending any object under a concept, the representation of the former must be homogeneous with the latter, that is, the concept must contain that which is represented in the object to be comprehended under it, for this is the only meaning of the expression that an object is comprehended under a concept. Thus, for instance, the empirical concept of a plate is homogeneous with the pure geometrical concept of a circle, the roundness which is conceived in the first forming an object of intuition in the latter.

Now it is clear that pure concepts of the understanding, as compared with empirical or sensuous impressions in general, are entirely heterogeneous, and can never be met with in any intuition. How then can the latter be comprehended under the former, or how can the categories be applied to phenomena, as no one is likely to say that causality, for instance, could be seen through the senses, and was contained in the phenomenon? It is really this very natural and important question which renders a transcendental doctrine of the faculty of judgment necessary, in order to show how it is possible that any of the pure concepts of the understanding can be applied to phenomena. In all other sciences in which the concepts by which the object is thought in general are not so heterogeneous or different from those which represent it *in concreto*, and as it is given, there is

no necessity to enter into any discussions as to the applicability of the former to the latter.

In our case there must be some third thing homogeneous on the one side with the category, and on the other with the phenomenon, to render the application of the former to the latter possible. This intermediate representation must be pure (free from all that is empirical) and yet intelligible on the one side, and sensuous on the other. Such a representation is the *transcendental schema.*

The concept of the understanding contains pure synthetical unity of the manifold in general. Time, as the formal condition of the manifold in the internal sense, consequently of the conjunction of all representations, contains a manifold *a priori* in pure intuition. A transcendental determination of time is so far homogeneous with the category (which constitutes its unity) that it is general and founded on a rule *a priori;* and it is on the other hand so far homogeneous with the phenomenon, that time must be contained in every empirical representation of the manifold. The application of the category to phenomena becomes possible therefore by means of the transcendental determination of time, which, as a *schema* of the concepts of the understanding, allows the phenomena to be comprehended under the category.

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CHAPTER II. PRINCIPLES OF THE PURE UNDERSTANDING

We have in the preceding chapter considered the transcendental faculty of judgment with reference to those general conditions only under which it is justified in using the pure concepts of the understanding for synthetical judgments. It now becomes our duty to represent systematically those judgments which, under that critical provision, the understanding can really produce *a priori.* For this purpose our table of categories will be without doubt our natural and best guide. . . .

All principles of the pure understanding are therefore,

I

Axioms of Intuition.

II	III
Anticipations of Perception.	Analogies of Experience.

IV

Postulates of Empirical Thought in General.

. . . .

I. Axioms of Intuition

Their principle is: All intuitions are extensive quantities.[1]

I call an extensive quantity that in which the representation of the whole is rendered possible by the representation of its parts, and therefore necessarily preceded by it. I cannot represent to myself any line, however small it may be, without drawing it in thought, that is, without producing all its parts one after the other, starting from a given point, and thus, first of all, drawing its intuition. The same applies to every, even the smallest portion of time. I can only think in it the successive progress from one moment to another, thus producing in the end, by all portions of time and their addition, a definite quantity of time. As in all phenomena pure intuition is either space or time, every phenomenon, as an intuition, must be an extensive quantity, because it can be known in apprehension by a successive synthesis only (of part with part). All phenomena therefore, when perceived in intuition, are aggregates (collections) of previously given parts, which is not the case with every kind of quantities, but with those only which are represented to us and apprehended as *extensive*.

On this successive synthesis of productive imagination in elaborating figures are founded the mathematics of extension with their axioms (geometry), containing the conditions of sen-

[1] The titles and the statements of the principles of the pure understanding are taken from the second edition.

suous intuition *a priori*, under which alone the schema of a pure concept of an external phenomenal appearance can be produced; for instance, between two points one straight line only is possible, or two straight lines cannot enclose a space, etc. These are the axioms which properly relate only to quantities (*quanta*) as such

This transcendental principle of phenomenal mathematics adds considerably to our knowledge *a priori*. Through it alone it becomes possible to make pure mathematics in their full precision applicable to objects of experience, which without that principle would by no means be self-evident, nay, has actually provoked much contradiction. Phenomena are not things in themselves. Empirical intuition is possible only through pure intuition (of space and time), and whatever geometry says of the latter is valid without contradiction of the former. . . . If phenomena were, however, things in themselves nothing could be known of them *a priori*, nothing could be known synthetically through pure concepts of space, and the science which determines these concepts, namely, geometry, would itself become impossible.

II. Anticipations of Perception

Their principle is: In all phenomena, the Real, which is the object of a sensation, has intensive quantity, that is a degree.

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Apprehension, by means of sensation only, fills no more than one moment (if we do not take into account the succession of many sensations). Sensation, therefore, being that in the phenomenon the apprehension of which does not form a successive synthesis progressing from parts to a complete representation, is without any extensive quantity, and the absence of sensation in one and the same moment would represent it as empty, therefore = o. What corresponds in every empirical intuition to sensation is reality (*realitas phaenomenon*), what corresponds to its absence is negation = o. Every sensation, however, is capable of diminution, so that it may decrease, and gradually vanish. There is therefore a continuous connection between reality in phenomena and negation, by means of many possible inter-

mediate sensations, the difference between which is always smaller than the difference between the given sensation and zero or complete negation. It thus follows that the real in each phenomenon has always a quantity, though it is not perceived in apprehension, because apprehension takes place by a momentary sensation, not by a successive synthesis of many sensations; it does not advance from the parts to the whole, and though it has a quantity, it has not an extensive quantity.

That quantity which can be apprehended as unity only, and in which plurality can be represented by approximation only to negation = o, I call *intensive quantity*. Every reality therefore in a phenomenon has intensive quantity, that is, a degree. . . .

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III. Analogies of Experience

Their principle is: Experience is possible only through the representation of a necessary connection of perceptions.

The three modi of time are *permanence*, *succession*, and *coexistence*. There will therefore be three rules of all relations of phenomena in time, by which the existence of every phenomenon with regard to the unity of time is determined, and these rules will precede all experience, nay, render experience possible.

The general principle of the three analogies depends on the necessary unity of apperception with reference to every possible empirical consciousness (perception) *at every time*, and, consequently, as that unity forms an *a priori* ground, on the synthetical unity of all phenomena, according to their relation in time. For the original apperception refers to the internal sense (comprehending all representations), and it does so *a priori* to its form, that is, to the relation of the manifold of the empirical consciousness in time. The original apperception is intended to combine all this manifold according to its relations in time, for this is what is meant by its transcendental unity *a priori*, to which all is subject which is to belong to my own and my uniform knowledge, and thus to become an object for me. This synthetical unity in the time relations of all perceptions, which is determined *a priori*, is expressed therefore in the law, that all

empirical determinations of time must be subject to rules of the general determination of time; and the analogies of experience, of which we are now going to treat, are exactly rules of this kind.

These principles have this peculiarity, that they do not refer to phenomena and the synthesis of their empirical intuition, but only to the *existence* of phenomena and their mutual *relation* with regard to their existence. The manner in which something is apprehended as a phenomenon may be so determined *a priori* that the rule of its synthesis may give at the same time this intuition *a priori* in any empirical case, nay, may really render it possible. But the existence of phenomena can never be known *a priori*, and though we might be led in this way to infer some kind of existence, we should never be able to know it definitely, or to anticipate that by which the empirical intuition of one differs from that of others.

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A. First Analogy. Principle of the Permanence of Substance.

In all changes of phenomena the substance is permanent, and its quantum is neither increased or diminished in nature.

PROOF

Our apprehension of the manifold of phenomena is always successive, and therefore always changing. By it alone therefore we can never determine whether the manifold, as an object of experience, is coexistent or successive, unless there is something in it which exists always, that is, something constant and permanent, while change and succession are nothing but so many kinds (*modi*) of time in which the permanent exists. Relations of time are therefore possible in the permanent only (coexistence and succession being the only relations of time) so that the permanent is the substratum of the empirical representation of time itself, and in it alone all determination of time is possible. Permanence expresses time as the constant correlative of all existence of phenomena, of all change and concomitancy. For change does not affect time itself, but only phenomena in time (nor is coexistence a mode of time itself, because

in it no parts can be coexistent, but successive only). If we were to ascribe a succession to time itself, it would be necessary to admit another time in which such succession should be possible. Only through the permanent does *existence* in different parts of a series of time assume a *quantity* which we call *duration*. For in mere succession existence always comes and goes, and never assumes the slightest quantity. Without something permanent therefore no relation of time is possible. Time, by itself, however, cannot be perceived, and it is therefore the permanent in phenomena that forms the substratum for all determination of time, and at the same time the condition of the possibility of all synthetical unity of perceptions, that is, of experience; while with regard to that permanent all existence and all change in time can only be taken as a mode of existence of what is permanent. In all phenomena therefore the permanent is the object itself, that is, the substance (phenomenon), while all that changes or can change belongs only to the mode in which substance or substances exist, therefore to their determinations.

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B. Second Analogy. Principle of the Succession of Time.

All changes take place according to the law of connection of cause and effect.

PROOF

This rule, by which we determine everything according to the succession of time, is this: the condition under which an event follows at all times (necessarily) is to be found in what precedes. All possible experience therefore, that is, all objective knowledge of phenomena with regard to their relation in the succession of time, depends on "the principle of sufficient reason."

The proof of this principle rests entirely on the following considerations. All empirical knowledge requires synthesis of the manifold by imagination, which is always successive, one representation following upon the other. That succession, however, in the imagination is not at all determined with regard to the order in which something precedes and something follows, and

the series of successive representations may be taken as retrogressive as well as progressive. If that synthesis, however, is a synthesis of apperception (of the manifold in a given phenomenon), then the order is determined in the object, or, to speak more accurately, there is then in it an order of successive synthesis which determines the object, and according to which something must necessarily precede, and, when it is once there, something else must necessarily follow. If therefore my perception is to contain the knowledge of an event, or something that really happens, it must consist of an empirical judgment, by which the succession is supposed to be determined, so that the event presupposes another phenomenon in time on which it follows necessarily and according to a rule. If it were different, if the antecedent phenomenon were there, and the event did not follow on it necessarily, it would become to me a mere play of my subjective imaginations, or if I thought it to be objective, I should call it a dream. It is therefore the relation of phenomena (as possible perceptions) according to which the existence of the subsequent (what happens) is determined in time by something antecedent necessarily and by rule, or, in other words, the relation of cause and effect, which forms the condition of the objective validity of our empirical judgments with regard to the series of perceptions, and therefore also the condition of the empirical truth of them, and of experience. The principle of the causal relation in the succession of phenomena is valid therefore for all objects of experience, also (under the conditions of succession), because that principle is itself the ground of the possibility of such experience.

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C. *Third Analogy. Principle of Community.*

All substances in so far as they can be perceived as coexistent in space, are always affecting each other reciprocally.

PROOF

Things are coexistent in so far as they exist at one and the same time. But how can we know that they exist at one and the same

time? Only if the order in the synthesis of apprehension of the manifold is indifferent, that is, if I may advance from A through B, C, D, to E, or contrariwise from E to A. For, if the synthesis were successive in time (in the order beginning with A and ending with E), it would be impossible to begin the apprehension with the perception of E and to go backwards to A, because A belongs to past time, and can no longer be an object of apprehension.

If we supposed it possible that in a number of substances, as phenomena, each were perfectly isolated, so that none influenced another or received influences from another, then the coexistence of them could never become an object of possible perception, nor could the existence of the one through any process of empirical synthesis lead us on to the existence of another. For if we imagined that they were separated by a perfectly empty space, a perception, proceeding from the one in time to the other might no doubt determine the existence of it by means of a subsequent perception, but would never be able to determine whether that phenomenon followed objectively on the other or was coexistent with it.

There must therefore be something besides their mere existence by which *A* determines its place in time for *B*, and *B* for *A*, because thus only can these two substances be represented empirically as coexistent. Nothing, however, can determine the place of anything else in time, except that which is its cause or the cause of its determinations. Therefore every substance (since it can be effect with regard to its determinations only) must contain in itself the causality of certain determinations in another substance, and, at the same time, the effects of the causality of that other substance, that is, substances must stand in dynamical communion, immediately or mediately, with each other, if their coexistence is to be known in any possible experience. Everything without which the experience of any objects would be impossible, may be said to be necessary with reference to such objects of experience; from which it follows that it is necessary for all substances, so far as they are coexistent as phenomena, to stand in a complete communion of reciprocity with each other.

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These are the three analogies of experience. They are nothing but principles for determining the existence of phenomena in time, according to its three modes. First, the relation of time itself, as to a quantity (quantity of existence, that is duration). Secondly, the relation in time, as in a series (successively). And thirdly, likewise in time, as the whole of all existence (simultaneously). This unity in the determination of time is dynamical only, that is, time is not looked upon as that in which experience assigns immediately its place to every existence, for this would be impossible; because absolute time is no object of perception by which phenomena could be held together; but the rule of the understanding through which alone the existence of phenomena can receive synthetical unity in time determines the place of each of them in time, therefore *a priori* and as valid for all time.

By nature (in the empirical sense of the word) we mean the coherence of phenomena in their existence, according to necessary rules, that is, laws. There are therefore certain laws, and they exist *a priori*, which themselves make nature possible, while the empirical laws exist and are discovered through experience, but in accordance with those original laws which first render experience possible. Our analogies therefore represent the unity of nature in the coherence of all phenomena, under certain exponents, which express the relation of time (as comprehending all existence) to the unity of apperception, which apperception can only take place in the synthesis according to rules. The three analogies, therefore, simply say, that all phenomena exist in one nature, and must so exist because, without such unity *a priori* no unity of experience, and therefore no determination of objects in experience, would be possible.

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IV. Postulates of All Empirical Thought

1. *What agrees with the formal conditions of experience (in intuition and in concepts) is possible.*

2. *What is connected with the material conditions of experience (sensation) is real.*

3. *That which, in its connection with the real, is determined by universal conditions of experience, is (exists as) necessary.*

Explanation.

The categories of modality have this peculiar character, that, as determining an object, they do not enlarge in the least the concept to which they are attached as predicates, but express only a relation to our faculty of knowledge. Even when the concept of a thing is quite complete, I can still ask with reference to that object, whether it is possible only, or real also, and, if the latter, whether it is necessary? No new determinations of the object are thereby conceived, but it is only asked in what relation it (with all its determinations) stands to the understanding and its empirical employment, to the empirical faculty of judgment, and to reason, in its application to experience.

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(1) The postulate of the possibility of things demands that the concept of these should agree with the formal conditions of experience in general. This, the objective form of experience in general, contains all synthesis which is required for a knowledge of objects. A concept is to be considered as empty, and as referring to no object, if the synthesis which it contains does not belong to experience, whether as borrowed from it (in which case it is called an empirical concept), or as a synthesis on which, as a condition *a priori*, all experience (in its form) depends, in which case it is a pure concept, but yet belonging to experience, because its object can only be found in it. For whence could the character of the possibility of an object, which can be conceived by a synthetical concept *a priori*, be derived, except from the synthesis which constitutes the form of all empirical knowledge of objects? It is no doubt a necessary logical condition, that such a concept must contain nothing contradictory, but this is by no means sufficient to establish the objective reality of a concept, that is, the possibility of such an object, as is conceived by a concept. Thus in the concept of a figure to be enclosed between two straight lines, there is nothing contradictory, because the concepts of two straight lines and their meeting contain

no negation of a figure. The impossibility depends, not on the concept itself, but on its construction in space, that is, the conditions of space and its determinations, and it is these that have objective reality, or apply to possible things, because they contain in themselves the form of experience in general *a priori.*

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(2) The postulate concerning our knowledge of the *reality* of things, requires *perception*, therefore sensation and consciousness of it, not indeed immediately of the object itself, the existence of which is to be known, but yet of a connection between it and some real perception, according to the analogies of experience which determine in general all real combinations in experience.

In the *mere concept* of a thing no sign of its existence can be discovered. For though the concept be ever so perfect, so that nothing should be wanting in it to enable us to conceive the thing with all its own determinations, existence has nothing to do with all this. It depends only on the question whether such a thing be given us, so that its perception may even precede its concept. A concept preceding experience implies its possibility only, while perception, which supplies the material of a concept, is the only characteristic of reality. It is possible, however, even before the perception of a thing, and therefore, in a certain sense, *a priori*, to know its existence, provided it hang together with some other perceptions, according to the principles of their empirical connection (analogies). For in that case the existence of a thing hangs together at least with our perceptions in a possible experience, and guided by our analogies we can, starting from our real experience, arrive at some other thing in the series of possible perceptions. Thus we know the existence of some magnetic matter pervading all bodies from the perception of the attracted iron filings, though our organs are so constituted as to render an immediate perception of that matter impossible. According to the laws of sensibility and the texture of our perceptions, we ought in our experience to arrive at an immediate empirical intuition of that magnetic matter, if only our senses

were more acute, for their actual obtuseness does not concern the form of possible experience. Wherever, therefore, perception and its train can reach, according to empirical laws, there our knowledge also of the existence of things can reach. But if we do not begin with experience, or do not proceed according to the laws of the empirical connection of phenomena, we are only making a vain display, as if we could guess and discover the existence of anything.

(3) With reference to the third postulate we find that it refers to the material necessity in existence, and not to the merely formal and logical necessity in the connection of concepts. As it is impossible that the existence of the objects of the senses should ever be known entirely *a priori*, though it may be known to a certain extent *a priori*, namely, with reference to another already given existence, and as even in that case we can only arrive at such an existence as must somewhere be contained in the whole of the experience of which the given perception forms a part, it follows that the necessity of existence can never be known from concepts, but only according to the general rules of experience from the connection always with what is actually perceived. Now, there is no existence that can be known as necessary under the condition of other given phenomena, except the existence of effects from given causes, according to the laws of causality. It is not therefore the existence of things (substances), but the existence of their state, of which alone we can know the necessity, and this from other states only, which are given in perception, and according to the empirical laws of causality. Hence it follows that the criterium of necessity can only be found in the law of possible experience, viz. that everything that happens is determined *a priori* by its cause in phenomena. We therefore know in nature the necessity of those effects only of which the causes are given, and the character of necessity in existence never goes beyond the field of possible experience, and even there it does not apply to the existence of things, as substances, because such substances can never be looked upon as empirical effects or as something that happens and arises. Necessity, therefore, affects only the relations of phenomena

according to the dynamical law of causality, and the possibility, dependent upon it, of concluding *a priori* from a given existence (of a cause) to another existence (that of an effect). . . .

CHAPTER III. DISTINCTION OF PHENOMENA AND NOUMENA

We have now not only traversed the whole domain of the pure understanding, and carefully examined each part of it, but we have also measured its extent, and assigned to everything in it its proper place. This domain, however, is an island and enclosed by nature itself within limits that can never be changed. It is the country of truth (a very attractive name), but surrounded by a wide and stormy ocean, the true home of illusion, where many a fog bank and ice that soon melts away tempt us to believe in new lands, while constantly deceiving the adventurous mariner with vain hopes, and involving him in adventures which he can never leave, and yet can never bring to an end. Before we venture ourselves on this sea, in order to explore it on every side, and to find out whether anything is to be hoped for there, it will be useful to glance once more at the map of that country which we are about to leave, and to ask ourselves, first, whether we might not be content with what it contains, nay, whether we must not be content with it, supposing that there is no solid ground anywhere else on which we could settle; secondly, by what title we possess even that domain, and may consider ourselves safe against all hostile claims. Although we have sufficiently answered these questions in the course of the analytic, a summary recapitulation of their solutions may help to strengthen our conviction, by uniting all arguments in one point.

We have seen that the understanding possesses everything which it draws from itself, without borrowing from experience, for no other purpose but for experience. The principles of the pure understanding, whether constitutive *a priori* (as the mathematical) or simply relative (as the dynamical), contain nothing but, as it were, the pure schema of possible experience; for that experience derives its unity from that synthetical unity alone

which the understanding originally and spontaneously imparts to the synthesis of imagination, with reference to apperception, and to which all phenomena, as data of a possible knowledge, must conform *a priori*. . . .

That the understanding cannot make any but an empirical, and never a transcendental, use of all its principles *a priori*, nay, of all its concepts, is a proposition which, if thoroughly understood, leads indeed to most important consequences. What we call the transcendental use of a concept in any proposition is its being referred to things in general and to things by themselves, while its empirical use refers to phenomena only, that is, to objects of a possible experience. That the latter use alone is admissible will be clear from the following considerations. What is required for every concept is, first, the logical form of a concept (of thought) in general; and, secondly, the possibility of an object to which it refers. Without the latter, it has no sense, and is entirely empty, though it may still contain the logical function by which a concept can be formed out of any data. The only way in which an object can be given to a concept is in intuition, and though a pure intuition is possible *a priori* and before the object, yet even that pure intuition can receive its object, and with it its objective validity, by an empirical intuition only, of which it is itself nothing but the form. All concepts, therefore, and with them all principles, though they may be possible *a priori*, refer nevertheless to empirical intuitions, that is, to data of a possible experience. Without this, they can claim no objective validity, but are a mere play, whether of the imagination or of the understanding, with their respective representations. . . .

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From this it follows incontestably, that the pure concepts of the understanding never admit of a transcendental, but only of an empirical use, and that the principles of the pure understanding can only be referred, as general conditions of a possible experience, to objects of the senses, never to things by themselves (without regard to the manner in which we have to look at them).

Transcendental Analytic has therefore yielded us this important result, that the understanding *a priori* can never do more than anticipate the form of a possible experience; and as nothing can be an object of experience except the phenomenon, it follows that the understanding can never go beyond the limits of sensibility, within which alone objects are given to us. Its principles are principles for the exhibition of phenomena only; and the proud name of Ontology, which presumes to supply in a systematic form different kinds of synthetical knowledge *a priori* of things by themselves (for instance the principle of causality), must be replaced by the more modest name of a mere Analytic of the pure understanding.

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If all thought (by means of categories) is taken away from empirical knowledge, no knowledge of any object remains, because nothing can be thought by mere intuition, and the mere fact that there is within me an affection of my sensibility, establishes in no way any relation of such a representation to any object. If, on the contrary, all intuition is taken away, there always remains the form of thought, that is, the mode of determining an object for the manifold of a possible intuition. In this sense the categories may be said to extend further than sensuous intuition, because they can think objects in general without any regard to the special mode of sensibility in which they may be given; but they do not thus prove a larger sphere of objects, because we cannot admit that such objects can be given, without admitting the possibility of some other but sensuous intuition, for which we have no right whatever.

I call a concept problematic, if it is not self-contradictory, and if, as limiting other concepts, it is connected with other kinds of knowledge, while its objective reality cannot be known in any way. Now the concept of a noumenon, that is of a thing which can never be thought as an object of the senses, but only as a thing by itself (by the pure understanding), is not self-contradictory, because we cannot maintain that sensibility is the only form of intuition. That concept is also necessary, to prevent sensuous intuition from extending to things by themselves;

that is, in order to limit the objective validity of sensuous knowledge (for all the rest to which sensuous intuition does not extend is called noumenon, for the very purpose of showing that sensuous knowledge cannot extend its domain over everything that can be thought by the understanding). But, after all, we cannot understand the possibility of such noumena, and whatever lies beyond the sphere of phenomena is (to us) empty; that is, we have an understanding which *problematically* extends beyond that sphere, but no intuition, nay not even the conception of a possible intuition, by which, outside the field of sensibility, objects could be given to us, and our understanding could extend beyond that sensibility in its assertory use. The concept of a noumenon is therefore merely *limitative*, and intended to keep the claims of sensibility within proper bounds, therefore of negative use only. But it is not a mere arbitrary fiction, but closely connected with the limitation of sensibility, though incapable of adding anything positive to the sphere of the senses.

A real division of objects into phenomena and noumena, and of the world into a sensible and intelligible world (in a positive sense), is therefore quite inadmissible, although concepts may very well be divided into sensuous and intellectual. No objects can be assigned to these intellectual concepts, nor can they be represented as objectively valid. If we drop the senses, how are we to make it conceivable that our categories (which would be the only remaining concepts for noumena) have any meaning at all, considering that, in order to refer them to any object, something more must be given than the mere unity of thought, namely, a possible intuition, to which the categories could be applied? With all this the concept of a noumenon, if taken as problematical only, remains not only admissible, but, as a concept to limit the sphere of sensibility, indispensable. In this case, however, it is not a purely *intelligible object* for *our* understanding, but an understanding to which it could belong is itself a problem, if we ask how it could know an object, not discursively by means of categories, but intuitively, and yet in a nonsensuous intuition, — a process of which we could not

understand even the bare possibility. Our understanding thus acquires a kind of negative extension, that is, it does not become itself limited by sensibility, but, on the contrary, limits it, by calling things by themselves (not considered as phenomena) noumena. In doing this, it immediately proceeds to prescribe limits to itself, by admitting that it cannot know these noumena by means of the categories, but can only think of them under the name of something unknown.

II. TRANSCENDENTAL DIALECTIC

INTRODUCTION. TRANSCENDENTAL ILLUSION

It is not at present our business to treat of empirical, for instance, optical appearance or illusion, which occurs in the empirical use of the otherwise correct rules of the understanding, and by which, owing to the influence of imagination, the faculty of judgment is misled. We have to deal here with nothing but the *transcendental illusion*, which touches principles never even intended to be applied to experience, which might give us a test of their correctness, — an illusion which, in spite of all the warnings of criticism, tempts us far beyond the empirical use of the categories, and deludes us with the mere dream of an extension of the pure understanding. All principles the application of which is entirely confined within the limits of possible experience, we shall call *immanent;* those, on the contrary, which tend to transgress those limits, *transcendent.* I do not mean by this the transcendental use or abuse of the categories, which is a mere fault of the faculty of the judgment, not being as yet sufficiently subdued by criticism nor sufficiently attentive to the limits of the sphere within which alone the pure understanding has full play, but real principles which call upon us to break down all those barriers, and to claim a perfectly new territory, which nowhere recognises any demarcation at all. Here *transcendental* and *transcendent* do not mean the same thing. The principles of the pure understanding, which we explained before,

are meant to be only of empirical, and not of transcendental application, that is, they cannot transcend the limits of experience. A principle, on the contrary, which removes these landmarks, nay, insists on our transcending them, is called *transcendent.* If our critique succeeds in laying bare the illusion of those pretended principles, the other principles of a purely empirical use may, in opposition to the former, be called *immanent.*

. . . .

Book II.—THE DIALECTICAL CONCLUSIONS OF PURE REASON

One might say that the object of a purely transcendental idea is something of which we have no concept, although the idea is produced with necessity according to the original laws of reason. Nor is it possible indeed to form of an object that should be adequate to the demands of reason, a concept of the understanding, that is, a concept which could be shown in any possible experience, and rendered intuitive. It would be better, however, and less liable to misunderstandings, to say that we can have no knowledge of an object corresponding to an idea, but a problematic concept only.

The transcendental (subjective) reality, at least of pure concepts of reason, depends on our being led to such ideas by a necessary syllogism of reason. There will be syllogisms therefore which have no empirical premises, and by means of which we conclude from something which we know to something else of which we have no concept, and to which, constrained by an inevitable illusion, we nevertheless attribute objective reality. As regards their result, such syllogisms are rather to be called sophistical than rational, although, as regards their origin, they may claim the latter name, because they are not purely fictitious or accidental, but products of the very nature of reason. They are sophistications, not of men, but of pure reason itself, from which even the wisest of men cannot escape. All he can do is, with great effort, to guard against error, though never able to

rid himself completely of an illusion which constantly torments and mocks him.

Of these dialectical syllogisms of reason there are therefore three classes only, that is as many as the ideas to which their conclusions lead. In the syllogism of the *first* class, I conclude from the transcendental concept of the subject, which contains nothing manifold, the absoulte unity of the subject itself, of which however I have no concept in this regard. This dialectical syllogism I shall call the transcendental *paralogism.*

The *second* class of the so-called sophistical syllogisms aims at the transcendental concept of an absolute totality in the series of conditions to any given phenomenon; and I conclude from the fact that my concept of the unconditioned synthetical unity of the series is always self-contradictory on one side, the correctness of the opposite unity, of which nevertheless I have no concept either. The state of reason in this class of dialectical syllogisms, I shall call the *antinomy* of pure reason.

Lastly, according to the *third* class of sophistical syllogisms, I conclude from the totality of conditions, under which objects in general, so far as they can be given to me, must be thought, the absolute synthetical unity of all conditions of the possibility of things in general; that is to say, I conclude from things which I do not know according to their mere transcendental concept, a Being of all beings, which I know still less through a transcendental concept, and of the unconditioned necessity of which I can form no concept whatever. This dialectical syllogism of reason I shall call the *ideal* of pure reason.

CHAPTER I. THE PARALOGISMS OF PURE REASON

The logical paralogism consists in the formal faultiness of a conclusion, without any reference to its contents. But a transcendental paralogism arises from a transcendental cause, which drives us to a formally false conclusion. Such a paralogism, therefore, depends most likely on the very nature of human reason, and produces an illusion which is inevitable, though not insoluble.

We now come to a concept which was not inserted in our general list of transcendental concepts, and yet must be reckoned with them, without however changing that table in the least, or proving it to be deficient. This is the concept, or, if the term is preferred, the judgment, *I think*. It is easily seen, however, that this concept is the vehicle of all concepts in general, therefore of transcendental concepts also, being always comprehended among them, and being itself transcendental also, though without any claim to a special title, inasmuch as it serves only to introduce all thought, as belonging to consciousness. However free that concept may be from all that is empirical (impressions of the senses), it serves nevertheless to distinguish two objects within the nature of our faculty of representation. *I*, as thinking, am an object of the internal sense, and am called soul. That which is an object of the external senses is called body. The term *I*, as a thinking being, signifies the object of psychology, which may be called the rational science of the soul, supposing that we want to know nothing about the soul except what, independent of all experience (which determines the I more especially and *in concreto*), can be deduced from the concept of I, so far as it is present in every act of thought. . . .

. . . .

I think is, therefore, the only text of rational psychology, out of which it must evolve all its wisdom. It is easily seen that this thought, if it is to be applied to any object (my self), cannot contain any but transcendental predicates, because the smallest empirical predicate would spoil the rational purity of the science, and its independence of all experience.

We shall therefore follow the thread of the categories, with this difference, however, that as here the first thing which is given is a thing, the I, a thinking being, we must begin with the category of substance, by which a thing in itself is represented, and then proceed backwards, though without changing the respective order of the categories, as given before in our table. The topic of the rational science of the soul, from which has to be derived whatever else that science may contain, is therefore the following.

I

The Soul is *substance.*

II

As regards its quality, *simple.*

III

As regards the different times in which it exists, numerically identical, that is *unity* (not plurality).

IV

It is in relation to *possible* objects in space.

. . . .

To these concepts refer four paralogisms of a transcendental psychology, which is falsely supposed to be a science of pure reason, concerning the nature of our thinking being. We can, however, use as the foundation of such a science nothing but the single, and in itself perfectly empty, representation of the I, of which we cannot even say that it is a concept, but merely a consciousness that accompanies all concepts. By this *I*, or *he*, or *it* (the thing), which thinks, nothing is represented beyond a transcendental subject of thoughts $=x$, which is known only through the thoughts that are its predicates, and of which, apart from them, we can never have the slightest concept, so that we are really turning round it in a perpetual circle, having already to use its representation, before we can form any judgment about it. And this inconvenience is really inevitable, because consciousness in itself is not so much a representation, distinguishing a particular object, but really a form of representation in general, in so far as it is to be called knowledge, of which alone I can say that I think something by it. . . .

As the proposition *I think* (taken problematically) contains the form of every possible judgment of the understanding, and accompanies all categories as their vehicle, it must be clear that the conclusions to be drawn from it can only contain a transcendental use of the understanding, which declines all admixture of experience, and of the achievements of which, after what has been said before, we cannot form any very favourable an-

ticipations. We shall therefore follow it, with a critical eye, through all the predicaments of pure psychology.[1]

The following general remark may at the very outset make us more attentive to this mode of syllogism. I do not know any object by merely thinking, but only by determining a given intuition with respect to that unity of consciousness in which all thought consists; therefore, I do not know myself by being conscious of myself, as thinking, but only if I am conscious of the intuition of myself as determined with respect to the function of thought. All modes of self-consciousness in thought are therefore by themselves not yet concepts of understanding of objects (categories), but mere logical functions, which present no object to our thought to be known, and therefore do not present myself either as an object. It is not a consciousness of the *determining*, but only that of the *determinable* self, that is, of my internal intuition (so far as the manifold in it can be connected in accordance with the general condition of the unity of apperception in thought) which forms the object.

1. In all judgments I am always the *determining subject* only of the relation which constitutes the judgment. That I, who think, can be considered in thinking as *subject* only, and as something not simply inherent in the thinking, as predicate, is an apodictical and even *identical* proposition; but it does not mean that, as an object, I am a *self-dependent being* or a *substance*. The latter would be saying a great deal, and requires for its support *data* which are not found in the thinking, perhaps (so far as I consider only the thinking subject as such) more than I shall ever find in it.

2. That the *Ego* of apperception, and therefore the *Ego* in every act of thought, is a *singular* which cannot be dissolved into a plurality of subjects, and that it therefore signifies a logically simple subject, follows from the very concept of thinking, and is consequently an analytical proposition. But this does not mean that a thinking *Ego* is a simple *substance*, which would indeed be a synthetical proposition. The concept of substance always re-

[1] All that follows, to the beginning of the second chapter, concerning paralogisms, is taken from the second edition.

lates to intuitions which, with me, cannot be other but sensuous, and which therefore lie completely outside the field of the understanding and its thinking, which alone is intended here, when we say that the *Ego*, in thinking, is simple. It would indeed be strange, if what elsewhere requires so great an effort, namely, to distinguish in what is given by intuition what is substance, and still more, whether that substance can be simple (as in the case of the component parts of matter), should in our case be given to us so readily in what is really the poorest of all representations, and, as it were, by an act of revelation.

3. The proposition of the identity of myself amidst the manifold of which I am conscious, likewise follows from the concepts themselves, and is therefore analytical; but the identity of the subject of which, in all its representations, I may become conscious, does not refer to the intuition by which it is given as an object, and cannot therefore signify the identity of the person, by which is understood the consciousness of the identity of one's own substance, as a thinking being, in all the changes of circumstances. In order to prove this, the mere analysis of the proposition, I think, would avail nothing: but different synthetical judgments would be required, which are based on the given intuition.

4. To say that I distinguish my own existence, as that of a thinking being, from other things outside me (one of them being my body) is likewise an analytical proposition; for *other* things are things which I conceive as *different* from myself. But, whether such a consciousness of myself is even possible without things outside me, whereby representations are given to me, and whether I could exist merely as a thinking being (without being a man), I do not know at all by that proposition.

Nothing therefore is gained by the analysis of the consciousness of myself, in thought in general, towards the knowledge of myself as an object. The logical analysis of thinking in general is simply mistaken for a metaphysical determination of the object.

. . . .

In this process of rational psychology, there lurks a paralogism which may be represented by the following syllogism.

That which cannot be conceived otherwise than as a subject, does not exist otherwise than as a subject, and is therefore a substance.

A thinking being, considered as such, cannot be conceived otherwise than as a subject.

Therefore it exists also as such only, that is, as a substance.

In the major they speak of a being that can be thought in every respect, and therefore also as it may be given in intuition. In the minor, however, they speak of it only so far as it considers itself, as subject, with respect to the thinking and the unity of consciousness only, but not at the same time in respect to the intuition whereby this unity is given as an object of thinking. The conclusion, therefore, has been drawn by a sophism, and more particularly by *sophisma figurae dictionis*.

. . . .

There is, therefore, no rational psychology, as a *doctrine*, furnishing any addition to our self-knowledge, but only as a *discipline*, fixing unpassable limits to speculative reason in this field, partly to keep us from throwing ourselves into the arms of a soulless materialism, partly to warn us against losing ourselves in a vague, and, with regard to practical life, baseless spiritualism. It reminds us at the same time to look upon this refusal of our reason to give a satisfactory answer to such curious questions, which reach beyond the limits of this life, as a hint to turn our self-knowledge away from fruitless speculations to a fruitful practical use — a use which, though directed always to objects of experience only, derives its principle from a higher source, and so regulates our conduct, as if our destination reached far beyond experience, and therefore far beyond this life.

. . . .

CHAPTER II. THE ANTINOMY OF PURE REASON

The second class of the dialectical arguments in analogy with the *hypothetical* syllogisms, takes for its object the unconditioned unity of the objective conditions in phenomenal appearance. . . .

It is remarkable, however, that a transcendental paralogism caused a one-sided illusion only, with regard to our idea of the subject of our thought; and that it is impossible to find in mere concepts of reason the slightest excuse for maintaining the contrary. . . . The case is totally different when we apply reason to the *objective synthesis* of phenomena; here reason tries at first, with great plausibility, to establish its principle of unconditioned unity, but becomes soon entangled in so many contradictions, that it must give up its pretensions with regard to cosmology also. For here we are met by a new phenomenon in human reason, namely, a perfectly natural Antithetic, which is not produced by any artificial efforts, but into which reason falls by itself, and inevitably. . . . As therefore the paralogisms of pure reason formed the foundation for a dialectical psychology, the antinomy of pure reason will place before our eyes the transcendental principles of a pretended pure (rational) cosmology, not in order to show that it is valid and can be accepted, but, as may be guessed from the very name of the antinomy of reason, in order to expose it as an idea surrounded by deceptive and false appearances, and utterly irreconcilable with phenomena.

Section I. System of Cosmological Ideas

Before we are able to enumerate these ideas according to a principle and with systematic precision, we must bear in mind,

1st, That pure and transcendental concepts arise from the understanding only, and that reason does not in reality produce any concept, but only *frees*, it may be, the *concept of the understanding* of the inevitable limitation of a possible experience, and thus tries to enlarge it, beyond the limits of experience, yet in connection with it. Reason does this by demanding for something that is given as conditioned, absolute totality on the side of the conditions (under which the understanding subjects all phenomena to the synthetical unity). It thus changes the category into a transcendental idea, in order to give absolute completeness to the empirical synthesis, by continuing it up to the unconditioned (which can never be met with in experience,

but in the idea only). In doing this, reason follows the principle that, *if the conditioned is given, the whole sum of conditions, and therefore the absolutely unconditioned must be given likewise*, the former being impossible without the latter. Hence the transcendental ideas are in reality nothing but categories, enlarged till they reach the unconditioned, and those ideas must admit of being arranged in a table, according to the titles of the categories.

2ndly, Not all categories will lend themselves to this, but those only in which the synthesis constitutes a *series*, and a series of subordinated (not of co-ordinated) conditions. Absolute totality is demanded by reason, with regard to an ascending series of conditions only, not therefore when we have to deal with a descending line of consequences, or with an aggregate of co-ordinated conditions.

I shall call the synthesis of a series on the side of the conditions, beginning with the one nearest to a given phenomenon, and advancing to the more remote conditions, *regressive;* the other, which on the side of the conditioned advances from the nearest effect to the more remote ones, *progressive.* The former proceeds in *antecedentia*, the second in *consequentia.* Cosmological ideas therefore, being occupied with the totality of regressive synthesis, proceed in *antecedentia*, not in *consequentia.* If the latter should take place, it would be a gratuitous, not a necessary problem of pure reason, because for a complete comprehension of what is given us in experience we want to know the causes, but not the effects.

. . . .

If therefore we select those categories which necessarily imply a series in the synthesis of the manifold, we shall have no more than four cosmological ideas, according to the four titles of the categories.

I

Absolute completeness
of the composition
of the given whole of all phenomena.

II

Absolute completeness
of the division
of a given whole
in phenomenal appearance.

III

Absolute completeness
of the origination
of a phenomenon
in general.

IV

Absolute completeness
of the dependence of the existence
of the changeable in phenomenal appearance.

. . . .

SECTION II. ANTITHETIC OF PURE REASON

If every collection of dogmatical doctrines is called *Thetic*, I may denote by *Antithetic*, not indeed dogmatical assertions of the opposite, but the conflict between different kinds of apparently dogmatical knowledge (*thesis cum antithesi*), to none of which we can ascribe a superior claim to our assent. This antithetic, therefore, has nothing to do with one-sided assertions, but considers general knowledge of reason with reference to the conflict only that goes on in it, and its causes. The transcendental antithetic is in fact an investigation of the antinomy of pure reason, its causes and its results. If we apply our reason, not only to objects of experience, in order to make use of the principles of the understanding, but venture to extend it beyond the limit of experience, there arise rationalising or sophistical propositions, which can neither hope for confirmation nor need fear refutation from experience. Every one of them is not only in itself free from contradiction, but can point to conditions of its necessity in the nature of reason itself, only that, unfortunately, its opposite can produce equally valid and necessary grounds for its support.

The antinomies* follow in the order of the transcendental ideas as given above.

* The "Observations" on them by Kant have been omitted.

The Antinomy of Pure Reason.

FIRST CONFLICT OF THE TRANSCENDENTAL IDEAS

THESIS

The world has a beginning in time, and is limited also with regard to space.

Proof.

For if we assumed that the world had no beginning in time, then an eternity must have elapsed up to every given point of time, and therefore an infinite series of successive states of things must have passed in the world. The infinity of a series, however, consists in this, that it never can be completed by means of a successive synthesis. Hence an infinite past series of worlds is impossible, and the beginning of the world a necessary condition of its existence. This was what had to be proved first.

With regard to the second, let us assume again the opposite. In that case the world would be given as an infinite whole of co-existing things. Now we cannot conceive in any way the extension of a quantum, which is not given within certain limits to every intuition, except through the synthesis of

ANTITHESIS

The world has no beginning and no limits in space, but is infinite, in respect both to time and space.

Proof.

For let us assume that it has a beginning. Then, as beginning is an existence which is preceded by a time in which the thing is not, it would follow that antecedently there was a time in which the world was not, that is, an empty time. In an empty time, however, it is impossible that anything should take its beginning, because of such a time no part possesses any condition as to existence rather than non-existence, which condition could distinguish that part from any other (whether produced by itself or through another cause). Hence, though many a series of things may take its beginning in the world, the world itself can have no beginning, and in reference to time past is infinite.

With regard to the second, let us assume again the opposite, namely, that the world is

its parts, nor the totality of such a quantum in any way, except through a completed synthesis, or by the repeated addition of unity to itself. In order therefore to conceive the world, which fills all space, as a whole, the successive synthesis of the parts of an infinite world would have to be looked upon as completed; that is, an infinite time would have to be looked upon as elapsed, during the enumeration of all co-existing things. This is impossible. Hence an infinite aggregate of real things cannot be regarded as a given whole, nor, therefore, as given at the same time. Hence it follows that the world is not infinite, as regards extension in space, but enclosed in limits. This was the second that had to be proved.

finite and limited in space. In that case the world would exist in an empty space without limits. We should therefore have not only a relation of things *in space*, but also of things *to space*. As however the world is an absolute whole, outside of which no object of intuition, and therefore no correlate of the world can be found, the relation of the world to empty space would be a relation to *no object*. Such a relation, and with it the limitation of the world by empty space, is nothing, and therefore the world is not limited with regard to space, that is, it is unlimited in extension.

SECOND CONFLICT OF THE TRANSCENDENTAL IDEAS

THESIS

Every compound substance in the world consists of simple parts, and nothing exists anywhere but the simple, or what is composed of it.

Proof.

For let us assume that compound substances did not consist of simple parts, then, if all composition is removed in

ANTITHESIS

No compound thing in the world consists of simple parts, and there exists nowhere in the world anything simple.

Proof.

Assume that a compound thing, a substance, consists of simple parts. Then as all external relation, and therefore

thought, there would be no compound part, and (as no simple parts are admitted) no simple part either, that is, there would remain nothing, and there would therefore be no substance at all. Either, therefore, it is impossible to remove all composition in thought, or, after its removal, there must remain something that exists without composition, that is the simple. In the former case the compound could not itself consist of substances (because with them composition is only an accidental relation of substances, which, as permanent beings, must subsist without it). As this contradicts the supposition, there remains only the second view, that the substantial compounds in the world consist of simple parts.

It follows as an immediate consequence that all the things in the world are simple beings, that their composition is only an external condition, and that, though we are unable to remove these elementary substances from their state of composition and isolate them, reason must conceive them as the first subjects of all composition, and therefore, antecedently to it, as simple beings.

all composition of substances also, is possible in space only, it follows that space must consist of as many parts as the parts of the compound that occupies the space. Space, however, does not consist of simple parts, but of spaces. Every part of a compound, therefore, must occupy a space. Now the absolutely primary parts of every compound are simple. It follows therefore that the simple occupies a space. But as everything real, which occupies a space, contains a manifold, the parts of which are by the side of each other, and which therefore is compounded, and, as a real compound, compounded not of accidents (for these could not exist by the side of each other, without a substance), but of substances, it would follow that the simple is a substantial compound, which is self-contradictory.

. . . .

THIRD CONFLICT OF THE TRANSCENDENTAL IDEAS

THESIS

Causality, according to the laws of nature, is not the only causality from which all the phenomena of the world can be deduced. In order to account for these phenomena it is necessary also to admit another causality, that of freedom.

Proof.

Let us assume that there is no other causality but that according to the laws of nature. In that case everything that *takes place*, presupposes an anterior state, on which it follows inevitably according to a rule. But that anterior state must itself be something which has taken place (which has come to be in time, and did not exist before), because, if it had always existed, its effect too would not have only just arisen, but have existed always. The causality, therefore, of a cause, through which something takes place, is itself an *event*, which again, according to the law of nature, presupposes an anterior state and its causality, and this again an anterior state, and so on. If, therefore, everything takes place according to mere laws of nature, there will always be a

ANTITHESIS

There is no freedom, but everything in the world takes place entirely according to the laws of nature.

Proof.

If we admit that there is *freedom*, in the transcendental sense, as a particular kind of causality, according to which the events in the world could take place, that is a faculty of absolutely originating a state, and with it a series of consequences, it would follow that not only a series would have its absolute beginning through this spontaneity, but the determination of that spontaneity itself to produce the series, that is, the causality, would have an absolute beginning, nothing preceding it by which this act is determined according to permanent laws. Every beginning of an act, however, presupposes a state in which the cause is not yet active, and a dynamically primary beginning of an act presupposes a state which has no causal connection with

secondary only, but never a primary beginning, and therefore no completeness of the series, on the side of successive causes. But the law of nature consists in this, that nothing takes place without a cause sufficiently determined *a priori*. Therefore the proposition, that all causality is possible according to the laws of nature only, contradicts itself, if taken in unlimited generality, and it is impossible, therefore, to admit that causality as the only one.

We must therefore admit another causality, through which something takes place, without its cause being further determined according to necessary laws by a preceding cause, that is, an *absolute spontaneity* of causes, by which a series of phenomena, proceeding according to natural laws, begins by itself; we must consequently admit transcendental freedom, without which, even in the course of nature, the series of phenomena on the side of causes, can never be perfect.

the preceding state of that cause, that is, in no wise follows from it. Transcendental freedom is therefore opposed to the law of causality, and represents such a connection of successive states of effective causes, that no unity of experience is possible with it. It is therefore an empty fiction of the mind, and not to be met with in any experience.

We have, therefore, nothing but *nature*, in which we must try to find the connection and order of cosmical events. Freedom (independence) from the laws of nature is no doubt a *deliverance* from restraint, but also from the *guidance* of all rules. For we cannot say that, instead of the laws of nature, laws of freedom may enter into the causality of the course of the world, because, if determined by laws, it would not be freedom, but nothing else but nature. Nature, therefore, and transcendental freedom differ from each other like legality and lawlessness. . . .

FOURTH CONFLICT OF THE TRANSCENDENTAL IDEAS

THESIS

There exists an absolutely necessary Being belonging to

ANTITHESIS

There nowhere exists an absolutely necessary Being, either

the world, either as a part or as a cause of it.

Proof.

The world of sense, as the sum total of all phenomena, contains a series of changes without which even the representation of a series of time, which forms the condition of the possibility of the world of sense, would not be given us. But every change has its condition which precedes it in time, and renders it necessary. Now, everything that is given as conditional presupposes, with regard to its existence, a complete series of conditions, leading up to that which is entirely unconditioned, and alone absolutely necessary. Something absolutely necessary therefore must exist, if there exists a change as its consequence. And this absolutely necessary belongs itself to the world of sense. For if we supposed that it existed outside that world, then the series of changes in the world would derive its origin from it, while the necessary cause itself would not belong to the world of sense. But this is impossible. For as the beginning of a temporal series can be determined only by that which

within or without the world, as the cause of it.

Proof.

If we supposed that the world itself is a necessary being, or that a necessary being exists in it, there would then be in the series of changes either a beginning, unconditionally necessary, and therefore without a cause, which contradicts the dynamical law of the determination of all phenomena in time; or the series itself would be without any beginning, and though contingent and conditioned in all its parts, yet entirely necessary and unconditioned as a whole. This would be self-contradictory, because the existence of a multitude cannot be necessary, if no single part of it possesses necessary existence.

If we supposed, on the contrary, that there exists an absolutely necessary cause of the world, outside the world, then that cause, as the highest member in *the series of causes* of cosmical changes, would begin the existence of the latter and their series. In that case, however, that cause would have to begin to act, and its causality would belong to time, and

precedes it in time, it follows that the highest condition of the beginning of a series of changes must exist in the time when that series was not yet (because the beginning is an existence, preceded by a time in which the thing which begins was not yet). Hence the causality of the necessary cause of changes and that cause itself belong to time and therefore to phenomena (in which alone time, as their form, is possible), and it cannot therefore be conceived as separated from the world of sense, as the sum total of all phenomena. It follows, therefore, that something absolutely necessary is contained in the world, whether it be the whole cosmical series itself, or only a part of it.

therefore to the sum total of phenomena. It would belong to the world, and would therefore not be outside the world, which is contrary to our supposition. Therefore, neither in the world, nor outside the world (yet in causal connection with it), does there exist anywhere an absolutely necessary Being.

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Section VII. Critical Solution of the Cosmological Conflict of Reason

The whole antinomy of pure reason rests on the dialectical argument that, if the conditioned is given, the whole series of conditions also is given. As therefore the objects of the senses are given us as conditioned, it follows, etc. Through this argument, the major of which seems so natural and self-evident, cosmological ideas have been introduced corresponding in number to the difference of conditions (in the synthesis of phenomena) which constitute a series. These cosmological ideas postulate the absolute totality of those series, and thus place reason in inevitable contradiction with itself. . . .

If we regard the two statements that the world is infinite in

extension, and that the world is finite in extension, as contradictory opposites, we assume that the world (the whole series of phenomena) is a thing by itself; for it remains, whether I remove the infinite or the finite regressus in the series of its phenomena. But if we remove this supposition, or this transcendental illusion, and deny that it is a thing by itself, then the contradictory opposition of the two statements becomes purely dialectical, and as the world does not exist by itself (independently of the regressive series of my representations), it exists neither as a whole *by itself infinite*, nor as a whole *by itself finite*. It exists only in the empirical regressus in the series of phenomena, and nowhere by itself. Hence, if that series is always conditioned, it can never exist as complete, and the world is therefore not an unconditioned whole, and does not exist as such, either with infinite or finite extension.

. . . .

The antinomy of pure reason with regard to its cosmological ideas is therefore removed by showing that it is dialectical only, and a conflict of an illusion produced by our applying the idea of absolute totality, which exists only as a condition of things by themselves, to phenomena, which exist in our representation only, and if they form a series, in the successive regressus, but nowhere else. We may, however, on the other side, derive from that antinomy a true, if not dogmatical, at least critical and doctrinal advantage, namely, by proving through it indirectly the transcendental ideality of phenomena, in case anybody should not have been satisfied by the direct proof given in the transcendental Æsthetic. The proof would consist in the following dilemma. If the world is a whole existing by itself, it is either finite or infinite. Now the former as well as the latter proposition is false, as has been shown by the proofs given in the antithesis on one and in the thesis on the other side. It is false, therefore, that the world (the sum total of all phenomena) is a whole existing by itself. Hence it follows that phenomena in general are nothing outside our representations, which was what we meant by their transcendental ideality.

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Section VIII. The Regulative Principle of Pure Reason in the Cosmological Ideas

As through the cosmological principle of totality no real maximum is *given* of the series of conditions in the world of sense, as a thing by itself, but can only be *required* in the regressus of that series, that principle of pure reason, if thus amended, still retains its validity, not indeed as an *axiom*, requiring us to think the totality in the object as real, but as a *problem* for the understanding, and therefore for the subject, encouraging us to undertake and to continue, according to the completeness in the idea, the regressus in the series of conditions of anything given as conditioned. In our sensibility, that is, in space and time, every condition which we can reach in examining given phenomena is again conditioned, because these phenomena are not objects by themselves, in which something absolutely unconditioned might possibly exist, but empirical representations only, which always must have their condition in intuition, whereby they are determined in space and time. The principle of reason is therefore properly a rule only, which in the series of conditions of given phenomena postulates a regressus which is never allowed to stop at anything absolutely unconditioned. It is therefore no principle of the possibility of experience and of the empirical knowledge of the objects of the senses, and not therefore a principle of the understanding, because every experience is (according to a given intuition) within its limits; nor is it a *constitutive principle* of reason, enabling us to extend the concept of the world of sense beyond all possible experience, but it is merely a principle of the greatest possible continuation and extension of our experience, allowing no empirical limit to be taken as an absolute limit. It is therefore a principle of reason, which, as a *rule*, postulates what we ought to do in the regressus, but does *not anticipate* what may be given in the *object*, before such regressus. I therefore call it a *regulative* principle of reason, while, on the contrary, the principle of the absolute totality of the series of conditions, as given in the object (the phenomena) by itself, would be a constitutive

cosmological principle, the hollowness of which I have tried to indicate by this very distinction, thus preventing what otherwise would have inevitably happened (through a transcendental surreptitious proceeding), namely, an idea, which is to serve as a rule only, being invested with objective reality.

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Section IX. Empirical Use of the Regulative Principle of Reason

No transcendental use, as we have shown on several occasions, can be made of the concepts either of the understanding or of reason; and the absolute totality of the series of conditions in the world of sense is due entirely to a transcendental use of reason, which demands this unconditioned completeness from what presupposes as a thing by itself. As no such thing is contained in the world of sense, we can never speak again of the absolute quantity of different series in it, whether they be limited or in themselves unlimited; but the question can only be, how far, in the empirical regressus, we may go back in tracing experience to its conditions, in order to stop, according to the rule of reason, at no other answer of its questions, but such as is in accordance with the object.

What therefore remains to us is only the *validity of the principle of reason*, as a rule for the continuation and for the extent of a possible experience, after its invalidity, as a constitutive principle of things by themselves, has been sufficiently established. If we have clearly established that invalidity, the conflict of reason with itself will be entirely finished, because not only has the illusion which led to that conflict been removed through critical analysis, but in its place the sense in which reason agrees with itself, and the misapprehension of which was the only cause of conflict, has been clearly exhibited, and a principle formerly *dialectical* changed into a *doctrinal* one. In fact, if that principle, according to its subjective meaning, can be proved fit to determine the greatest possible use of the understanding in experience, as adequate to its objects, this would be the same as if it determined, as an axiom (which is impossible

from pure reason), the objects themselves *a priori*: for this also could not, with reference to the objects of experience, exercise a greater influence on the extension and correction of our knowledge, than proving itself efficient in the most extensive use of our understanding, as applied to experience. . . .

Concluding Remark on the Whole Antinomy of Pure Reason.

So long as it is only the totality of the conditions in the world of sense and the interest it can have to reason, that form the object of the concepts of our reason, our ideas are no doubt transcendental, but yet *cosmological*. If, however, we place the unconditioned (with which we are chiefly concerned) in that which is entirely outside the world of sense, therefore beyond all possible experience, our ideas become *transcendent*: for they serve not only for the completion of the empirical use of the understanding (which always remains an idea that must be obeyed, though it can never be fully carried out), but they separate themselves entirely from it, and create to themselves objects the material of which is not taken from experience, and the objective reality of which does not rest on the completion of the empirical series, but on pure concepts *a priori*. Such transcendent ideas have a merely intelligible object, which may indeed be admitted as a transcendental object, of which, for the rest, we know nothing, but for which, if we wish to conceive it as a thing determined by its internal distinguishing predicates, we have neither grounds of possibility (as independent of all concepts of experience) nor the slightest justification on our side in admitting it as an object, and which, therefore, is a mere creation of our thoughts. Nevertheless that cosmological idea, which owes its origin to the fourth antinomy, urges us on to take that step. For the conditioned existence of all phenomena, not being founded in itself, requires us to look out for something different from all phenomena, that is, for an intelligible object in which there should be no more contingency. As, however, if we have once allowed ourselves to admit, outside the field of the whole of sensibility, a reality existing by itself, phenomena can only be considered as contingent modes of representing intelligible objects on the part

of beings which themselves are intelligences, nothing remains to us, in order to form some kind of concept of intelligible things, of which in themselves we have not the slightest knowledge, but analogy, applied to the concepts of experience. As we know the contingent by experience only, but have here to deal with things which are not meant to be objects of experience, we shall have to derive our knowledge of them from what is necessary in itself, that is, from pure concepts of things in general. Thus the first step which we take outside the world of sense, obliges us to begin our new knowledge with the investigation of the absolutely necessary Being, and to derive from its concepts the concepts of all things, so far as they are intelligible only; and this we shall attempt to do in the next chapter.

CHAPTER III. THE IDEAL OF PURE REASON

SECTION I. THE IDEAL IN GENERAL

We have seen that without the conditions of sensibility, it is impossible to represent objects by means of the pure *concepts of the understanding*, because the conditions of their objective reality are absent, and they contain the mere form of thought only. If, however, we apply these concepts to phenomena, they can be represented *in concreto*, because in the phenomena they have the material for forming concepts of experience, which are nothing but concepts of the understanding *in concreto. Ideas*, however, are still further removed from objective reality than the *categories*, because they can meet with no phenomenon in which they could be represented *in concreto.* They contain a certain completeness unattainable by any possible empirical knowledge, and reason aims in them at a systematical unity only, to which the empirically possible unity is to approximate, without ever fully reaching it.

Still further removed from objective reality than the Idea, would seem to be what I call the *Ideal*, by which I mean the idea, not only *in concreto*, but *in individuo*, that is, an individual thing determinable or even determined by the idea alone.

. . . .

In its ideal, on the contrary, reason aims at a perfect determination, according to rules *a priori*, and it conceives an object throughout determinable according to principles, though without the sufficient conditions of experience, so that the concept itself is transcendent.

SECTION II. THE TRANSCENDENTAL IDEAL

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The ideal of which we are speaking is founded on a natural, not on a purely arbitrary idea. I ask, therefore, how does it happen that reason considers all the possibility of things as derived from one fundamental possibility, namely, that of the highest reality, and then presupposes it as contained in a particular original being? The answer is easily found in the discussions of the transcendental Analytic. The possibility of the objects of our senses is their relation to our thought, by which something (namely, the empirical form) can be thought *a priori*, while what constitutes the matter, the reality in the phenomena (all that corresponds to sensation) must be given, because without it it could not even be thought, nor its possibility be represented. An object of the senses can be completely determined only when it is compared with all phenomenal predicates, and represented by them either affirmatively or negatively. As, however, that which constitutes the thing itself (as a phenomenon), namely, the real, must be given, and as without this the thing could not be conceived at all, and as that in which the real of all phenomena is given is what we call the one and all comprehending experience, it is necessary that the material for the possibility of all objects of our senses should be presupposed as given in one whole, on the limitation of which alone the possibility of all empirical objects, their difference from each other, and their complete determination can be founded. And since no other objects can be given us but those of the senses, and nowhere but in the context of a possible experience, nothing can be an object to us, if it does not presuppose that whole of all empirical reality, as the condition of its possibility. Owing to a natural illusion, we are led to consider a principle which applies only to

the objects of *our* senses, as a principle valid for all things, and thus to take the empirical principle of our concepts of the possibility of things as phenomena, by omitting this limitation, as a transcendental principle of the possibility of things in general.

If afterwards we hypostasise this idea of the whole of all reality, this is owing to our changing dialectically the distributive unity of the empirical use of our understanding into the collective unity of an empirical whole, and then representing to ourselves this whole of phenomena as an individual thing, containing in itself all empirical reality. Afterwards, by means of the aforementioned transcendental subreption, this is taken for the concept of a thing standing at the head of the possibility of all things, and supplying the real conditions for their complete determination.

Section III. The Arguments of Speculative Reason in Proof of the Existence of a Supreme Being

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This therefore is the natural course of human reason. It begins by persuading itself of the existence of some necessary Being. In this being it recognises unconditioned existence. It then seeks for the concept of that which is independent of all condition, and finds it in that which is itself the sufficient condition of all other things, that is, in that which contains all reality. Now as the unlimited all is absolute unity, and implies the concept of a being, one and supreme, reason concludes that the Supreme Being, as the original cause of all things, must exist by absolute necessity.

. . . .

There are only three kinds of proofs of the existence of God from speculative reason.

All the paths that can be followed to this end begin either from definite experience and the peculiar nature of the world of sense, known to us through experience, and ascend from it, according to the laws of causality, to the highest cause, existing outside the world; or they rest on indefinite experience only,

that is, on any existence which is empirically given; or lastly, they leave all experience out of account, and conclude, entirely *a priori* from mere concepts, the existence of a supreme cause. The first proof is the *physico-theological,* the second the *cosmological,* the third the *ontological* proof. There are no more, and there can be no more.

I shall show that neither on the one path, the empirical, nor on the other, the transcendental, can reason achieve anything, and that it stretches its wings in vain, if it tries to soar beyond the world of sense by the mere power of speculation. With regard to the order in which these three arguments should be examined, it will be the opposite of that, followed by reason in its gradual development, in which we placed them also at first ourselves. For we shall be able to show that, although experience gives the first impulse, it is the transcendental concept only which guides reason in its endeavours, and fixes the last goal which reason wishes to retain. I shall therefore begin with the examination of the transcendental proof, and see afterwards how far it may be strengthened by the addition of empirical elements.

Section IV. The Ontological Proof

It is easily perceived, from what has been said before, that the concept of an absolutely necessary Being is a concept of pure reason, that is, a mere idea, the objective reality of which is by no means proved by the fact that reason requires it. That idea does no more than point to a certain but unattainable completeness, and serves rather to limit the understanding, than to extend its sphere. It seems strange and absurd, however, that a conclusion of an absolutely necessary existence from a given existence in general should seem urgent and correct, and that yet all the conditions under which the understanding can form a concept of such a necessity should be entirely against us.

. . . .

I might have hoped to put an end to this subtle argumentation, without many words, and simply by an accurate definition of the concept of existence, if I had not seen that the illusion, in mis-

taking a logical predicate for a real one (that is the predicate which determines a thing), resists all correction. Everything can become a *logical predicate*, even the subject itself may be predicated of itself, because logic takes no account of any contents of concepts. *Determination*, however, is a predicate, added to the concept of the subject, and enlarging it, and it must not therefore be contained in it.

Being is evidently not a real predicate, or a concept of something that can be added to the concept of a thing. It is merely the admission of a thing, and of certain determinations in it. Logically, it is merely the copula of a judgment. The proposition, *God is almighty*, contains two concepts, each having its object, namely, God and almightiness. The small word *is*, is not an additional predicate, but only serves to put the predicate *in relation* to the subject. If, then, I take the subject (God) with all its predicates (including that of almightiness), and say, *God is*, or there is a God. I do not put a new predicate to the concept of God, but I only put the subject by itself, with all its predicates, in relation to my concept, as its object. Both must contain exactly the same kind of thing, and nothing can have been added to the concept, which expresses possibility only, by my thinking its object as simply given and saying, it is. And thus the real does not contain more than the possible. A hundred real dollars do not contain a penny more than a hundred possible dollars. For as the latter signify the concept, the former the object and its position by itself, it is clear that, in case the former contained more than the latter, my concept would not express the whole object, and would not therefore be its adequate concept. In my financial position no doubt there exists more by one hundred real dollars, than by their concept only (that is their possibility), because in reality the object is not only contained analytically in my concept, but is added to my concept (which is a determination of my state), synthetically; but the conceived hundred dollars are not in the least increased through the existence which is outside my concept.

By whatever and by however many predicates I may think a thing (even in completely determining it), nothing is really added

to it, if I add that the thing exists. Otherwise, it would not be the same that exists, but something more than was contained in the concept, and I could not say that the exact object of my concept existed. Nay, even if I were to think in a thing all reality, except one, that one missing reality would not be supplied by my saying that so defective a thing exists, but it would exist with the same defect with which I thought it; or what exists would be different from what I thought. If, then, I try to conceive a being, as the highest reality (without any defect), the question still remains, whether it exists or not. For though in my concept there may be wanting nothing of the possible real content of a thing in general, something is wanting in its relation to my whole state of thinking, namely, that the knowledge of that object should be possible *a posteriori* also. . . .

. . . .

The concept of a Supreme Being is, in many respects, a very useful idea, but, being an idea only, it is quite incapable of increasing, by itself alone, our knowledge with regard to what exists. It cannot even do so much as to inform us any further as to its possibility. The analytical characteristic of possibility, which consists in the absence of contradiction in mere positions (realities), cannot be denied to it; but the connection of all real properties in one and the same thing is a synthesis the possibility of which we cannot judge *a priori* because these realities are not given to us as such, and because, even if this were so, no judgment whatever takes place, it being necessary to look for the characteristic of the possibility of synthetical knowledge in experience only, to which the object of an idea can never belong. Thus we see that the celebrated Leibnitz is far from having achieved what he thought he had, namely, to understand *a priori* the possibility of so sublime an ideal Being.

Time and labour therefore are lost on the famous ontological (Cartesian) proof of the existence of a Supreme Being from mere concepts; and a man might as well imagine that he could become richer in knowledge by mere ideas, as a merchant in capital, if, in order to improve his position, he were to add a few thoughts to his cash account.

Section V. The Cosmological Proof

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The *cosmological proof*, which we have now to examine, retains the connection of absolute necessity with the highest reality, but instead of concluding, like the former, from the highest reality necessity in existence, it concludes from the given unconditioned necessity of any being, its unlimited reality. It thus brings everything at least into the groove of a natural, though I know not whether of a really or only apparently rational syllogism, which carries the greatest conviction, not only for the common, but also for the speculative understanding, and has evidently drawn the first outline of all proofs of natural theology, which have been followed at all times, and will be followed in future also, however much they may be hidden and disguised. We shall now proceed to exhibit and to examine this cosmological proof which Leibnitz calls also the proof *a contingentia mundi.*

It runs as follows: If there exists anything, there must exist an absolutely necessary Being also. Now I, at least, exist; therefore there exists an absolutely necessary Being. The minor contains an experience, the major the conclusion from experience in general to the existence of the necessary. This proof therefore begins with experience, and is not entirely *a priori*, or ontological; and, as the object of all possible experience is called the world, this proof is called the *cosmological proof*. As it takes no account of any peculiar property of the objects of experience, by which this world of ours may differ from any other possible world, it is distinguished, in its name also, from the physico-theological proof, which employs as arguments, observations of the peculiar property of this our world of sense.

The proof then proceeds as follows: The necessary Being can be determined in one way only, that is, by one only of all possible opposite predicates; it must therefore be determined completely by its own concept. Now, there is only one concept of a thing possible, which *a priori* completely determines it, namely, that of the *ens realissimum.* It follows, therefore, that the concept

of the *ens realissimum* is the only one by which a necessary Being can be thought, and therefore it is concluded that a highest Being exists by necessity.

. . . .

I said before that a whole nest of dialectical assumptions was hidden in that cosmological proof, and that transcendental criticism might easily detect and destroy it. I shall here enumerate them only, leaving it to the experience of the reader to follow up the fallacies and remove them.

We find, first, the transcendental principle of inferring a cause from the accidental. This principle, that everything contingent must have a cause, is valid in the world of sense only, and has not even a meaning outside it. For the purely intellectual concept of the contingent cannot produce a synthetical proposition like that of causality, and the principle of causality has no meaning and no criterion of its use, except in the world of sense, while here it is meant to help us beyond the world of sense.

Secondly. The inference of a first cause, based on the impossibility of an infinite ascending series of given causes in this world of sense, — an inference which the principles of the use of reason do not allow us to draw even in experience, while here we extend that principle beyond experience, whither that series can never be prolonged.

Thirdly. The false self-satisfaction of reason with regard to the completion of that series, brought about by removing in the end every kind of condition, without which, nevertheless, no concept of necessity is possible, and by then, when any definite concepts have become impossible, accepting this as a completion of our concept.

Fourthly. The mistaking the logical possibility of a concept of all united reality (without any internal contradiction) for the transcendental, which requires a principle for the practicability of such a synthesis, such principle however being applicable to the field of possible experience only, etc. . . .

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Section VI. The Physico-Theological Proof

If, then, neither the concept of things in general, nor the experience of any *existence in general*, can satisfy our demands, there still remains one way open, namely, to try whether any *definite experience*, and consequently that of things in the world as it is, their constitution and disposition, may not supply a proof which could give us the certain conviction of the existence of a Supreme Being. Such a proof we should call *physico-theological*. If that, however, should prove impossible too, then it is clear that no satisfactory proof whatever, from merely speculative reason, is possible, in support of the existence of a Being, corresponding to our transcendental idea.

. . . .

This proof will always deserve to be treated with respect. It is the oldest, the clearest, and most in conformity with human reason. It gives life to the study of nature, deriving its own existence from it, and thus constantly acquiring new vigour.

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The principal points of the physico-theological proof are the following. 1st. There are everywhere in the world clear indications of an intentional arrangement carried out with great wisdom, and forming a whole indescribably varied in its contents and infinite in extent.

2dly. The fitness of this arrangement is entirely foreign to the things existing in the world, and belongs to them contingently only; that is, the nature of different things could never spontaneously, by the combination of so many means, co-operate towards definite aims, if these means had not been selected and arranged on purpose by a rational disposing principle, according to certain fundamental ideas.

3dly. There exists, therefore, a sublime and wise cause (or many), which must be the cause of the world, not only as a blind and all-powerful nature, by means of unconscious *fecundity*, but as an intelligence, by *freedom*.

4thly. The unity of that cause may be inferred with certainty from the unity of the reciprocal relation of the parts of the

world, as portions of a skilful edifice, so far as our experience reaches, and beyond it, with plausibility, according to the principles of analogy.

. . . .

According to this argument, the fitness and harmony existing in so many works of nature might prove the contingency of the form, but not of the matter, that is, the substance in the world, because, for the latter purpose, it would be necessary to prove in addition, that the things of the world were in themselves incapable of such order and harmony, according to general laws, unless there existed, even in their *substance*, the product of a supreme wisdom. For this purpose, very different arguments would be required from those derived from the analogy of human art. The utmost, therefore, that could be established by such a proof would be an *architect of the world*, always very much hampered by the quality of the material with which he has to work, not a *creator*, to whose idea everything is subject. This would by no means suffice for the purposed aim of proving an all-sufficient original Being. If we wished to prove the contingency of matter itself, we must have recourse to a transcendental argument, and this is the very thing which was to be avoided.

. . . .

The fact is that, after having reached the stage of admiration of the greatness, the wisdom, the power, etc. of the Author of the world, and seeing no further advance possible, one suddenly leaves the argument carried on by empirical proofs, and lays hold of that contingency which, from the very first, was inferred from the order and design of the world. The next step from that contingency leads, by means of transcendental concepts only, to the existence of something absolutely necessary, and another step from the absolute necessity of the first cause to its completely determined or determining concept, namely, that of an all-embracing reality. Thus we see that the physico-theological proof, baffled in its own undertaking, takes suddenly refuge in the cosmological proof, and as this is only the ontological proof in disguise, it really carries out its original intention by

means of pure reason only; though it so strongly disclaimed in the beginning all connection with it, and professed to base everything on clear proofs from experience.

Thus we have seen that the physico-theological proof rests on the cosmological, and the cosmological on the ontological proof of the existence of one original Being as the Supreme Being; and, as besides these three, there is no other path open to speculative reason, the ontological proof, based exclusively on pure concepts of reason, is the only possible one, always supposing that any proof of a proposition, so far transcending all empirical use of the understanding, is possible at all.

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CRITIQUE OF PRACTICAL REASON

Translated from the German * *by*
THOMAS KINGSMILL ABBOTT

Book I. — THE ANALYTIC OF PURE PRACTICAL REASON

CHAPTER I. OF THE PRINCIPLES OF PURE PRACTICAL REASON

Section I. Definition

Practical Principles are propositions which contain a general determination of the will, having under it several practical rules. They are subjective, or *Maxims*, when the condition is regarded by the subject as valid only for his own will, but are objective, or practical *laws*, when the condition is recognized as objective, that is, valid for the will of every rational being. †

Section II. Theorem I

All practical principles which presuppose an object (matter) of the faculty of desire as the ground of determination of the will are empirical, and can furnish no practical laws.

By the matter of the faculty of desire I mean an object the realization of which is desired. Now, if the desire for this object *precedes* the practical rule, and is the condition of our making it a principle, then I say (*in the first place*) this principle is in that case wholly empirical, for then what determines the choice is the idea of an object, and that relation of this idea to the subject by which its faculty of desire is determined to its realization. Such a relation to the subject is called the *pleasure* in the realization of an object. This, then, must be presupposed as a

* From the *Kritik der praktischen Vernunft*, Riga, 1788; *id.*, *Werke*, hrsg. v. K. Rosenkranz, Lpz. 1838–39, Bd. x. Reprinted from Kant's *Critique of Practical Reason*, trans. by T. K. Abbott, 5th ed., London, Longmans, Green & Co., 1898

† "Remarks" by Kant under Sections I–V have been omitted.

condition of the possibility of determination of the will. But it is impossible to know *a priori* of any idea of an object whether it will be connected with *pleasure* or *pain*, or be indifferent. In such cases, therefore, the determining principle of the choice must be empirical, and, therefore, also the practical material principle which presupposes it as a condition.

In the second place, since susceptibility to a pleasure or pain can be known only empirically, and cannot hold in the same degree for all rational beings, a principle which is based on this subjective condition may serve indeed as a *maxim* for the subject which possesses this susceptibility, but not as a *law* even to him (because it is wanting in objective necessity, which must be recognized *a priori*); it follows, therefore, that such a principle can never furnish a practical law.

Section III. Theorem II

All material practical principles as such are of one and the same kind, and come under the general principle of self-love or private happiness.

Pleasure arising from the idea of the existence of a thing, in so far as it is to determine the desire of this thing, is founded on the *susceptibility* of the subject, since it *depends* on the presence of an object; hence it belongs to sense (feeling), and not to understanding, which expresses a relation of the idea *to an object* according to concepts, not to the subject according to feelings. It is then practical only in so far as the faculty of desire is determined by the sensation of agreeableness which the subject expects from the actual existence of the object. Now, a rational being's consciousness of the pleasantness of life uninterruptedly accompanying his whole existence is happiness, and the principle which makes this the supreme ground of determination of the will is the principle of self-love. All material principles, then, which place the determining ground of the will in the pleasure or pain to be received from the existence of any object are all of the same kind, inasmuch as they all belong to the principle of self-love or private happiness.

Corollary.

All *material* practical rules place the determining principle of the will in the *lower desires*, and if there were no *purely formal* laws of the will adequate to determine it, then we could not admit *any higher desire* at all.

SECTION IV. THEOREM III

A rational being cannot regard his maxims as practical universal laws, unless he conceives them as principles which determine the will, not by their matter, but by their form only.

By the matter of a practical principle I mean the object of the will. This object is either the determining ground of the will or it is not. In the former case the rule of the will is subjected to an empirical condition (viz. the relation of the determining idea to the feeling of pleasure and pain), consequently it cannot be a practical law. Now, when we abstract from a law all matter, *i. e.* every object of the will (as a determining principle), nothing is left but the mere *form* of a universal legislation. Therefore, either a rational being cannot conceive his subjective practical principles, that is, his maxims, as being at the same time universal laws, or he must suppose that their mere form, by which they are fitted for universal legislation, is alone what makes them practical laws.

SECTION V. PROBLEM I

Supposing that the mere legislative form of maxims is alone the sufficient determining principle of a will, to find the nature of the will which can be determined by it alone.

Since the bare form of the law can only be conceived by reason, and is, therefore, not an object of the senses, and consequently does not belong to the class of phenomena, it follows that the idea of it, which determines the will, is distinct from all the principles that determine events in nature according to the law of causality, because in their case the determining princi-

ples must themselves be phenomena. Now, if no other determining principle can serve as a law for the will except that universal legislative form, such a will must be conceived as quite independent on the natural law of phenomena in their mutual relation, namely, the law of causality; such independence is called *freedom* in the strictest, that is in the transcendental sense; consequently, a will which can have its law in nothing but the mere legislative form of the maxim is a free will.

SECTION VI. PROBLEM II

Supposing that a will is free, to find the law which alone is competent to determine it necessarily.

Since the matter of the practical law, *i. e.* an object of the maxim, can never be given otherwise than empirically, and the free will is independent on empirical conditions (that is, conditions belonging to the world of sense) and yet is determinable, consequently a free will must find its principle of determination in the law, and yet independently of the matter of the law. But, besides the matter of the law, nothing is contained in it except the legislative form. It is the legislative form, then, contained in the maxim, which can alone constitute a principle of determination of the [free] will.

Remark.

Thus freedom and an unconditional practical law reciprocally imply each other. Now I do not ask here whether they are in fact distinct, or whether an unconditioned law is not rather merely the consciousness of a pure practical reason, and the latter identical with the positive concept of freedom; I only ask, whence *begins* our *knowledge* of the unconditionally practical, whether it is from freedom or from the practical law? Now it cannot begin from freedom, for of this we cannot be immediately conscious, since the first concept of it is negative; nor can we infer it from experience, for experience gives us the knowledge only of the law of phenomena, and hence of the mechanism of nature, the direct opposite of freedom. It is

therefore the moral law, of which we become directly conscious (as soon as we trace for ourselves maxims of the will), that *first* presents itself to us, and leads directly to the concept of freedom, inasmuch as reason presents it as a principle of determination not to be outweighed by any sensible conditions, nay, wholly independent of them.

SECTION VII. FUNDAMENTAL LAW OF THE PURE PRACTICAL REASON

Act so that the maxim of thy will can always at the same time hold good as a principle of universal legislation.

Remark.

. . . We may call the consciousness of this fundamental law a fact of reason, because we cannot reason it out from antecedent data of reason, *e. g.* the consciousness of freedom (for this is not antecedently given), but it forces itself on us as a synthetic *a priori* proposition which is not based on any intuition, either pure or empirical. It would, indeed, be analytical if the freedom of the will were presupposed, but to presuppose freedom as a positive *concept* would require an intellectual intuition, which cannot here be assumed; however, when we regard this law as *given,* it must be observed, in order not to fall into any misconception, that it is not an empirical fact, but the sole fact of the pure reason, which thereby announces itself as originally legislative (*sic volo sic jubeo*).

Corollary.

Pure reason is practical of itself alone, and gives (to man) a universal law which we call the *Moral Law.*

Remark.

Now this principle of morality, just on account of the universality of the legislation which makes it the formal supreme determining principle of the will, without regard to any subjective differences, is declared by the reason to be a law for all rational beings, in so far as they have a will, that is, a power to

determine their causality by the conception of rules; and, therefore, so far as they are capable of acting according to principles, and consequently also according to practical *a priori* principles (for these alone have the necessity that reason requires in a principle). It is, therefore, not limited to men only, but applies to all finite beings that possess reason and will; nay, it even includes the Infinite Being as the supreme intelligence. In the former case, however, the law has the form of an imperative, because in them, as rational beings, we can suppose a *pure* will, but being creatures affected with wants and physical motives, not a *holy* will, that is, one which would be incapable of any maxim conflicting with the moral law. In their case, therefore, the moral law is an *imperative*, which commands categorically, because the law is unconditioned; the relation of such a will to this law is *dependence* under the name of *obligation*, which implies a *constraint* to an action, though only by reason and its objective law; and this action is called *duty*, because an elective will, subject to pathological affections (though not determined by them, and therefore still free), implies a wish that arises from *subjective* causes, and therefore may often be opposed to the pure objective determining principle; whence it requires the moral constraint of a resistance of the practical reason, which may be called an internal, but intellectual, compulsion. In the supreme intelligence the elective will is rightly conceived as incapable of any maxim which could not at the same time be objectively a law; and the notion of *holiness*, which on that account belongs to it, places it, not indeed above all practical laws, but above all practically restrictive laws, and consequently above obligation and duty. This holiness of will is, however, a practical idea, which must necessarily serve as a type to which finite rational beings can only approximate indefinitely, and which the pure moral law, which is itself on this account called holy, constantly and rightly holds before their eyes. The utmost that finite practical reason can effect is to be certain of this indefinite progress of one's maxims, and of their steady disposition to advance. This is virtue, and virtue, at least as a naturally acquired faculty, can never be perfect, because assurance in

such a case never becomes apodictic certainty, and when it only amounts to persuasion is very dangerous.

Section VIII. — Theorem IV

The *autonomy* of the will is the sole principle of all moral laws, and of all duties which conform to them; on the other hand, *heteronomy* of the elective will not only cannot be the basis of any obligation, but is, on the contrary, opposed to the principle thereof, and to the morality of the will.

In fact the sole principle of morality consists in the independence on all matter of the law (namely, a desired object), and in the determination of the elective will by the mere universal legislative form of which its maxim must be capable. Now this *independence* is *freedom* in the *negative* sense, and this *self-legislation* of the pure, and, therefore, practical reason is freedom in the *positive* sense. Thus the moral law expresses nothing else than the *autonomy* of the pure practical reason; that is, freedom; and this is itself the formal condition of all maxims, and on this condition only can they agree with the supreme practical law. If therefore the matter of the volition, which can be nothing else than the object of a desire that is connected with the law, enters into the practical law, *as the condition of its possibility*, there results heteronomy of the elective will, namely, dependence on the physical law that we should follow some impulse or inclination. In that case the will does not give itself the law, but only the precept how rationally to follow pathological law; and the maxim which, in such a case, never contains the universally legislative form, not only produces no obligation, but is itself opposed to the principle of a pure practical reason, and, therefore, also to the moral disposition, even though the resulting action may be conformable to the law.

Remark I

The matter then of the maxim may remain, but it must not be the condition of it, else the maxim could not be fit for a law. Hence, the mere form of law, which limits the matter, must also

be a reason for adding this matter to the will, not for presupposing it. For example, let the matter be my own happiness. This (rule), if I attribute it to every one (as, in fact, I may, in the case of every finite being), can become an *objective* practical law only if I include the happiness of others. Therefore, the law that we should promote the happiness of others does not arise from the assumption that this is an object of everyone's choice, but merely from this, that the form of universality which reason requires as the condition of giving to a maxim of self-love the objective validity of a law, is the principle that determines the will. Therefore it was not the object (the happiness of others) that determined the pure will, but it was the form of law only, by which I restricted my maxim, founded on inclination, so as to give it the universality of a law, and thus to adapt it to the practical reason; and it is this restriction alone, and not the addition of an external spring, that can give rise to the notion of the *obligation* to extend the maxim of my self-love to the happiness of others.

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CHAPTER II. THE CONCEPT OF AN OBJECT OF PURE PRACTICAL REASON

By a concept of the practical reason I understand the idea of an object as an effect possible to be produced through freedom. To be an object of practical knowledge, as such, signifies, therefore, only the relation of the will to the action by which the object or its opposite would be realized; and to decide whether something is an object of *pure* practical reason or not, is only to discern the possibility or impossibility of *willing* the action by which, if we had the required power (about which experience must decide), a certain object would be realized. If the object be taken as the determining principle of our desire, it must first be known whether it is *physically* possible by the free use of our powers, before we decide whether it is an object of practical reason or not. On the other hand, if the law can be considered *a priori* as the determining principle of the action, and the latter

therefore as determined by pure practical reason, the judgment, whether a thing is an object of pure practical reason or not does not depend at all on the comparison with our physical power; and the question is only whether we should *will* an action that is directed to the existence of an object, if the object were in our power; hence the previous question is only as to the *moral possibility* of the action, for in this case it is not the object, but the law of the will, that is the determining principle of the action. The only objects of practical reason are therefore those of *good* and *evil*. For by the former is meant an object necessarily desired according to a principle of reason; by the latter one necessarily shunned, also according to a principle of reason.

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In estimating what is good or evil in itself, as distinguished from what can be so called only relatively, the following points are to be considered. Either a rational principle is already conceived as of itself the determining principle of the will, without regard to possible objects of desire (and therefore by the mere legislative form of the maxim), and in that case that principle is a practical *a priori* law, and pure reason is supposed to be practical of itself. The law in that case determines the will directly; the action conformed to it is *good in itself*; a will whose maxim always conforms to this law is *good absolutely in every respect*, and is the *supreme condition of all good*. Or the maxim of the will is consequent on a determining principle of desire which presupposes an object of pleasure or pain, something therefore that *pleases* or *displeases*, and the maxim of reason that we should pursue the former and avoid the latter determines our actions as good relatively to our inclination, that is, good indirectly (*i. e.* relatively to a different end to which they are means), and in that case these maxims can never be called laws, but may be called rational practical precepts. The end itself, the pleasure that we seek, is in the latter case not a *good* but a *welfare*; not a concept of reason, but an empirical concept of an object of sensation; but the use of the means thereto, that is, the action, is nevertheless called good (because rational deliberation is required for it), not however good absolutely, but

only relatively to our sensuous nature, with regard to its feelings of pleasure and displeasure; but the will whose maxim is affected thereby is not a pure will; this is directed only to that in which pure reason by itself can be practical.

. . . .

Now, since the notions of good and evil, as consequences of the *a priori* determination of the will, imply also a pure practical principle, and therefore a causality of pure reason; hence they do not originally refer to objects (so as to be, for instance, special modes of the synthetic unity of the manifold of given intuitions in one consciousness) like the pure concepts of the understanding or categories of reason in its theoretic employment; on the contrary, they presuppose that objects are given; but they are all modes (*modi*) of a single category, namely, that of causality, the determining principle of which consists in the rational conception of a law, which as a law of freedom reason gives to itself, thereby *a priori* proving itself practical. However, as the actions *on the one side* come under a law which is not a physical law, but a law of freedom, and consequently belong to the conduct of beings in the world of intelligence, yet on the *other side* as events in the world of sense they belong to phenomena; hence the determinations of a practical reason are only possible in reference to the latter, and therefore in accordance with the categories of the understanding; not indeed with a view to any theoretic employment of it, *i. e.* so as to bring the manifold of (sensible) *intuition* under one consciousness *à priori;* but only to subject the manifold of *desires* to the unity of consciousness of a practical reason, giving it commands in the moral law, *i. e.* to a pure will *a priori*.

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CHAPTER III. OF THE MOTIVES OF PURE PRACTICAL REASON

What is essential in the moral worth of actions is *that the moral law should directly determine the will.* If the determination of the will takes place in conformity indeed to the moral law, but

only by means of a feeling, no matter of what kind, which has to be presupposed in order that the law may be sufficient to determine the will, and therefore not *for the sake of the law*, then the action will possess *legality* but not *morality*. Now, if we understand by *motive* [or *spring*] (*elater animi*) the subjective ground of determination of the will of a being whose Reason does not necessarily conform to the objective law, by virtue of its own nature, then it will follow, first, that no motives can be attributed to the Divine will, and that the motives of the human will (as well as that of every created rational being) can never be anything else than the moral law, and consequently that the objective principle of determination must always and alone be also the subjectively sufficient determining principle of the action, if this is not merely to fulfil the *letter* of the law, without containing its *spirit*.

Since, then, for the purpose of giving the moral law influence over the will, we must not seek for any other motives that might enable us to dispense with the motive of the law itself, because that would produce mere hypocrisy, without consistency; and it is even *dangerous* to allow other motives (for instance, that of interest) even to co-operate *along with* the moral law; hence nothing is left us but to determine carefully in what way the moral law becomes a motive, and what effect this has upon the faculty of desire. For as to the question how a law can be directly and of itself a determining principle of the will (which is the essence of morality), this is, for human reason, an insoluble problem and identical with the question how a free will is possible. Therefore what we have to show *a priori* is, not why the moral law in itself supplies a motive, but what effect it, as such, produces (or, more correctly speaking, must produce) on the mind.

The essential point in every determination of the will by the moral law is that being a free will it is determined simply by the moral law, not only without the co-operation of sensible impulses, but even to the rejection of all such, and to the checking of all inclinations so far as they might be opposed to that law. So far, then, the effect of the moral law as a motive is only

negative, and this motive can be known *a priori* to be such. For all inclination and every sensible impulse is founded on feeling, and the negative effect produced on feeling (by the check on the inclinations) is itself feeling; consequently, we can see *a priori* that the moral law, as a determining principle of the will, must by thwarting all our inclinations produce a feeling which may be called pain; and in this we have the first, perhaps the only instance, in which we are able from *a priori* considerations to determine the relation of a cognition (in this case of pure practical reason) to the feeling of pleasure or displeasure. All the inclinations together (which can be reduced to a tolerable system, in which case their satisfaction is called happiness) constitute *self-regard* (*solipsismus*). This is either the *self-love* that consists in an excessive *fondness* for oneself (*philautia*), or satisfaction with oneself (*arrogantia*). The former is called particularly *selfishness*; the latter *self-conceit.* Pure practical reason only *checks* selfishness, looking on it as natural and active in us even prior to the moral law, so far as to limit it to the condition of agreement with this law, and then it is called *rational self-love.* But self-conceit Reason *strikes down* altogether, since all claims to self-esteem which precede agreement with the moral law are vain and unjustifiable, for the certainty of a state of mind that coincides with this law is the first condition of personal worth (as we shall presently show more clearly), and prior to this conformity any pretension to worth is false and unlawful. Now the propensity to self-esteem is one of the inclinations which the moral law checks, inasmuch as that esteem rests only on morality. Therefore, the moral law breaks down self-conceit. But as this law is something positive in itself, namely, the form of an intellectual causality, that is, of freedom, it must be an object of respect; for by opposing the subjective antagonism of the inclinations it *weakens* self-conceit; and since it even *breaks down*, that is, humiliates this conceit, it is an object of the highest respect, and consequently is the foundation of a positive feeling which is not of empirical origin, but is known *a priori.* Therefore respect for the moral law is a feeling which is produced by an intellectual cause, and this feeling is the only one

that we know quite *a priori*, and the necessity of which we can perceive.

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The moral law is in fact for the will of a perfect being a law of *holiness*, but for the will of every finite rational being a law of *duty*, of moral constraint, and of the determination of its actions by *respect* for this law and reverence for its duty. No other subjective principle must be assumed as a motive, else while the action might chance to be such as the law prescribes, yet as it does not proceed from duty, the intention, which is the thing properly in question in this legislation, is not moral.

It is a very beautiful thing to do good to men from love to them and from sympathetic good will, or to be just from love of order; but this is not yet the true moral maxim of our conduct which is suitable to our position amongst rational beings as *men*, when we pretend with fanciful pride to set ourselves above the thought of duty, like volunteers, and, as if we were independent on the command, to want to do of our own good pleasure what we think we need no command to do. We stand under a *discipline* of reason, and in all our maxims must not forget our subjection to it, nor withdraw anything therefrom, or by an egotistic presumption diminish aught of the authority of the law (although our own reason gives it) so as to set the determining principle of our will, even though the law be conformed to, anywhere else but in the law itself and in respect for this law. Duty and obligation are the only names that we must give to our relation to the moral law. We are indeed legislative members of a moral kingdom rendered possible by freedom, and presented to us by reason as an object of respect; but yet we are subjects in it, not the sovereign, and to mistake our inferior position as creatures and presumptuously to reject the authority of the moral law is already to revolt from it in spirit, even though the letter of it is fulfilled.

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Duty! Thou sublime and mighty name that dost embrace nothing charming or insinuating, but requirest submission, and

yet seekest not to move the will by threatening aught that would arouse natural aversion or terror, but merely holdest forth a law which of itself finds entrance into the mind, and yet gains reluctant reverence (though not always obedience), a law before which all inclinations are dumb, even though they secretly counter-work it; what origin is there worthy of thee, and where is to be found the root of thy noble descent which proudly rejects all kindred with the inclinations; a root to be derived from which is the indispensable condition of the only worth which men can give themselves?

It can be nothing less than a power which elevates man above himself (as a part of the world of sense), a power which connects him with an order of things that only the understanding can conceive, with a world which at the same time commands the whole sensible world, and with it the empirically determinable existence of man in time, as well as the sum total of all ends (which totality alone suits such unconditional practical laws as the moral). This power is nothing but *personality*, that is, freedom and independence on the mechanism of nature, yet, regarded also as a faculty of a being which is subject to special laws, namely, pure practical laws given by its own reason; so that the person as belonging to the sensible world is subject to his own personality as belonging to the intelligible [super-sensible] world. It is then not to be wondered at that man, as belonging to both worlds, must regard his own nature in reference to its second and highest characteristic only with reverence, and its laws with the highest respect.

On this origin are founded many expressions which designate the worth of objects according to moral ideas. The moral law is *holy* (inviolable). Man is indeed unholy enough, but he must regard *humanity* in his own person as holy. In all creation everything one chooses, and over which one has any power, may be used *merely as means;* man alone, and with him every rational creature, is an *end in himself*. By virtue of the autonomy of his freedom he is the subject of the moral law, which is holy. Just for this reason every will, even every person's own individual will, in relation to itself, is restricted to the condition

of agreement with the *autonomy* of the rational being, that is to say, that it is not to be subject to any purpose which cannot accord with a law which might arise from the will of the passive subject himself; the latter is, therefore, never to be employed merely as means, but as itself also, concurrently, an end. We justly attribute this condition even to the Divine will, with regard to the rational beings in the world, which are His creatures, since it rests on their *personality*, by which alone they are ends in themselves.

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Book II. — DIALECTIC OF PURE PRACTICAL REASON

CHAPTER I. OF A DIALECTIC OF PURE PRACTICAL REASON GENERALLY

Pure reason always has its dialectic, whether it is considered in its speculative or its practical employment; for it requires the absolute totality of the conditions of what is given conditioned, and this can only be found in things in themselves. But as all conceptions of things in themselves must be referred to intuitions, and with us men these can never be other than sensible, and hence can never enable us to know objects as things in themselves but only as appearances, and since the unconditioned can never be found in this chain of appearances which consists only of conditioned and conditions; thus from applying this rational idea of the totality of the conditions (in other words of the unconditioned) to appearances there arises an inevitable illusion, as if these latter were things in themselves (for in the absence of a warning critique they are always regarded as such). This illusion would never be noticed as delusive if it did not betray itself by a *conflict* of reason with itself, when it applies to appearances its fundamental principle of presupposing the unconditioned to everything conditioned. By this, however, reason is compelled to trace this illusion to its source, and search how it can be removed, and this can only be done by a

complete critical examination of the whole pure faculty of reason; so that the antinomy of the pure reason which is manifest in its dialectic is in fact the most beneficial error into which human reason could ever have fallen, since it at last drives us to search for the key to escape from this labyrinth; and when this key is found, it further discovers that which we did not seek but yet had need of, namely, a view into a higher and an immutable order of things, in which we even now are, and in which we are thereby enabled by definite precepts to continue to live according to the highest dictates of reason.

It may be seen in detail in the Critique of Pure Reason how in its speculative employment this natural dialectic is to be solved, and how the error which arises from a very natural illusion may be guarded against. But reason in its practical use is not a whit better off. As pure practical reason, it likewise seeks to find the unconditioned for the practically conditioned (which rests on inclinations and natural wants), and this not as the determining principle of the will, but even when this is given (in the moral law) it seeks the unconditioned totality of the *object* of pure practical reason under the name of the *Summum Bonum.*

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The moral law is the sole determining principle of a pure will. But since this is merely formal (viz. as prescribing only the form of the maxim as universally legislative), it abstracts as a determining principle from all matter — that is to say, from every object of volition. Hence, though the *summum bonum* may be the whole *object* of a pure practical reason, *i. e.* a pure will, yet it is not on that account to be regarded as its *determining principle;* and the moral law alone must be regarded as the principle on which that and its realization or promotion are aimed at. This remark is important in so delicate a case as the determination of moral principles, where the slightest misinterpretation perverts men's minds. For it will have been seen from the Analytic, that if we assume any object under the name of a good as a determining principle of the will prior to the moral law, and then deduce from it the supreme practical principle.

this would always introduce heteronomy, and crush out the moral principle.

It is, however, evident that if the notion of the *summum bonum* includes that of the moral law as its supreme condition, then the *summum bonum* would not merely be an *object*, but the notion of it and the conception of its existence as possible by our own practical reason, would likewise be the *determining principle* of the will, since in that case the will is in fact determined by the moral law which is already included in this conception, and by no other object, as the principle of autonomy requires. This order of the conceptions of determination of the will must not be lost sight of, as otherwise we should misunderstand ourselves, and think we had fallen into a contradiction, while everything remains in perfect harmony.

CHAPTER II. THE "SUMMUM BONUM"

The conception of the *summum* itself contains an ambiguity which might occasion needless disputes if we did not attend to it. The *summum* may mean either the supreme (*supremum*) or the perfect (*consummatum*). The former is that condition which is itself unconditioned, *i. e.* is not subordinate to any other (*originarium*); the second is that whole which is not a part of a greater whole of the same kind (*perfectissimum*). It has been shown in the Analytic that *virtue* (as worthiness to be happy) is the *supreme condition* of all that can appear to us desirable, and consequently of all our pursuit of happiness, and is therefore the *supreme* good. But it does not follow that it is the whole and perfect good as the object of the desires of rational finite beings; for this requires happiness also, and that not merely in the partial eyes of the person who makes himself an end, but even in the judgment of an impartial reason, which regards persons in general as ends in themselves. For to need happiness, to deserve it, and yet at the same time not to participate in it, cannot be consistent with the perfect volition of a rational being possessed at the same time of all power, if, for the sake of experiment, we conceive such a being. Now inasmuch as virtue and

happiness together constitute the possession of the *summum bonum* in a person, and the distribution of happiness in exact proportion to morality (which is the worth of the person, and his worthiness to be happy) constitutes the *summum bonum* of a possible world; hence this *summum bonum* expresses the whole, the perfect good, in which, however, virtue as the condition is always the supreme good, since it has no condition above it; whereas happiness, while it is pleasant to the possessor of it, is not of itself absolutely and in all respects good, but always presupposes morally right behaviour as its condition. . . .

I. — The Antinomy of Practical Reason

In the *summum bonum* which is practical for us, *i. e.* to be realised by our will, virtue and happiness are thought as necessarily combined, so that the one cannot be assumed by pure practical reason without the other also being attached to it. Now this combination (like every other) is either *analytical* or *synthetical*. It has been shown that it cannot be analytical; it must then be synthetical, and, more particularly, must be conceived as the connexion of cause and effect, since it concerns a practical good, *i. e.* one that is possible by means of action; consequently either the desire of happiness must be the motive to maxims of virtue, or the maxim of virtue must be the efficient cause of happiness. The first is *absolutely* impossible, because (as was proved in the Analytic) maxims which place the determining principle of the will in the desire of personal happiness are not moral at all, and no virtue can be founded on them. But the second is *also impossible,* because the practical connexion of causes and effects in the world, as the result of the determination of the will, does not depend upon the moral dispositions of the will, but on the knowledge of the laws of nature and the physical power to use them for one's purposes; consequently we cannot expect in the world by the most punctilious observance of the moral laws any necessary connexion of happiness with virtue adequate to the *summum bonum.* Now as the promotion of this *summum bonum,* the conception of which contains this

connexion, is *a priori* a necessary object of our will, and inseparably attached to the moral law, the impossibility of the former must prove the falsity of the latter. If then the supreme good is not possible by practical rules, then the moral law also which commands us to promote it is directed to vain imaginary ends, and must consequently be false.

II. — Critical Solution of the Antinomy

The antinomy of pure speculative reason exhibits a similar conflict between freedom and physical necessity in the causality of events in the world. It was solved by showing that there is no real contradiction when the events and even the world in which they occur are regarded (as they ought to be) merely as appearances; since one and the same acting being, *as an appearance* (even to his own inner sense) has a causality in the world of sense that always conforms to the mechanism of nature, but with respect to the same events, so far as the acting person regards himself at the same time as a noumenon (as pure intelligence in an existence not dependent on the condition of time), he can contain a principle by which that causality acting according to laws of nature is determined, but which is itself free from all laws of nature.

It is just the same with the foregoing antinomy of pure practical reason. The first of the two propositions, That the endeavour after happiness produces a virtuous mind, is *absolutely false;* but the second, That a virtuous mind necessarily produces happiness, is *not absolutely* false, but only in so far as virtue is considered as a form of causality in the sensible world, and consequently only if I suppose existence in it to be the only sort of existence of a rational being; it is then only *conditionally* false. But as I am not only justified in thinking that I exist also as a noumenon in a world of the understanding, but even have in the moral law a purely intellectual determining principle of my causality (in the sensible world), it is not impossible that morality of mind should have a connexion as cause with happiness (as an effect in the sensible world) if not immediate yet mediate

(viz.: through an intelligent author of nature), and moreover necessary; while in a system of nature which is merely an object of the senses this combination could never occur except contingently, and therefore could not suffice for the *summum bonum.*

Thus, notwithstanding this seeming conflict of practical reason with itself, the *summum bonum,* which is the necessary supreme end of a will morally determined, is a true object thereof; for it is practically possible, and the maxims of the will which as regards their matter refer to it, have objective reality, which at first was threatened by the antinomy that appeared in the connexion of morality with happiness by a general law; but this was merely from a misconception, because the relation between appearances was taken for a relation of the things in themselves to these appearances.

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IV. — The Immortality of the Soul as a Postulate of Pure Practical Reason

The realization of the *summum bonum* in the world is the necessary object of a will determinable by the moral law. But in this will the *perfect accordance* of the mind with the moral law is the supreme condition of the *summum bonum.* This then must be possible, as well as its object, since it is contained in the command to promote the latter. Now, the perfect accordance of the will with the moral law is *holiness,* a perfection of which no rational being of the sensible world is capable at any moment of his existence. Since, nevertheless, it is required as practically necessary, it can only be found in a *progress in infinitum* towards that perfect accordance, and on the principles of pure practical reason it is necessary to assume such a practical progress as the real object of our will.

Now, this endless progress is only possible on the supposition of an *endless* duration of the *existence* and personality of the same rational being (which is called the immortality of the soul). The *summum bonum,* then, practically is only possible on the supposition of the immortality of the soul; consequently this

immortality, being inseparably connected with the moral law, is a postulate of pure practical reason (by which I mean a *theoretical* proposition, not demonstrable as such, but which is an inseparable result of an unconditional *à priori practical* law).

This principle of the moral destination of our nature, namely, that it is only in an endless progress that we can attain perfect accordance with the moral law, is of the greatest use, not merely for the present purpose of supplementing the impotence of speculative reason, but also with respect to religion. In default of it, either the moral law is quite degraded from its *holiness*, being made out to be *indulgent*, and conformable to our convenience, or else men strain their notions of their vocation and their expectation to an unattainable goal, hoping to acquire complete holiness of will, and so they lose themselves in fanatical *theosophic* dreams, which wholly contradict self-knowledge. In both cases the unceasing *effort* to obey punctually and thoroughly a strict and inflexible command of reason, which yet is not ideal but real, is only hindered. For a rational but finite being, the only thing possible is an endless progress from the lower to higher degrees of moral perfection. The *Infinite* Being, to whom the condition of time is nothing, sees in this to us endless succession a whole of accordance with the moral law; and the holiness which His command inexorably requires, in order to be true to His justice in the share which He assigns to each in the *summum bonum*, is to be found in a single intellectual intuition of the whole existence of rational beings. All that can be expected of the creature in respect of the hope of this participation would be the consciousness of his tried character, by which, from the progress he has hitherto made from the worse to the morally better, and the immutability of purpose which has thus become known to him, he may hope for a further unbroken continuance of the same, however long his existence may last, even beyond this life, and thus he may hope, not indeed here, nor at any imaginable point of his future existence, but only in the endlessness of his duration (which God alone can survey) to be perfectly adequate to his will (without indulgence or excuse, which do not harmonize with justice).

V. — The Existence of God as a Postulate of Pure Practical Reason.

In the foregoing analysis the moral law led to a practical problem which is prescribed by pure reason alone, without the aid of any sensible motives, namely, that of the necessary completeness of the first and principal element of the *summum bonum*, viz. Morality; and as this can be perfectly solved only in eternity, to the postulate of *immortality*. The same law must also lead us to affirm the possibility of the second element of the *summum bonum*, viz. Happiness proportioned to that morality, and this on grounds as disinterested as before, and solely from impartial reason; that is, it must lead to the supposition of the existence of a cause adequate to this effect; in other words, it must postulate the *existence of God*, as the necessary condition of the possibility of the *summum bonum* (an object of the will which is necessarily connected with the moral legislation of pure reason). We proceed to exhibit this connexion in a convincing manner.

Happiness is the condition of a rational being in the world with whom *everything goes according to his wish and will*; it rests, therefore, on the harmony of physical nature with his whole end, and likewise with the essential determining principle of his will. Now the moral law as a law of freedom commands by determining principles, which ought to be quite independent on nature and on its harmony with our faculty of desire (as springs). But the acting rational being in the world is not the cause of the world and of nature itself. There is not the least ground, therefore, in the moral law for a necessary connexion between morality and proportionate happiness in a being that belongs to the world as part of it, and therefore dependent on it, and which for that reason cannot by his will be a cause of this nature, nor by his own power make it thoroughly harmonize, as far as his happiness is concerned, with his practical principles. Nevertheless, in the practical problem of pure reason, *i. e.* the necessary pursuit of the *summum bonum*, such a connexion is postulated as necessary: we ought to endeavour

to promote the *summum bonum*, which, therefore, must be possible. Accordingly, the existence of a cause of all nature, distinct from nature itself, and containing the principle of this connexion, namely, of the exact harmony of happiness with morality, is also *postulated*. Now, this supreme cause must contain the principle of the harmony of nature, not merely with a law of the will of rational beings, but with the conception of this *law*, in so far as they make it the *supreme determining principle of the will*, and consequently not merely with the form of morals, but with their morality as their motive, that is, with their moral character. Therefore, the *summum bonum* is possible in the world only on the supposition of a supreme Being having a causality corresponding to moral character. Now a being that is capable of acting on the conception of laws is an *intelligence* (a rational being), and the causality of such a being according to this conception of laws is his *will;* therefore the supreme cause of nature, which must be presupposed as a condition of the *summum bonum*, is a being which is the cause of nature by *intelligence* and *will*, consequently its author, that is God. It follows that the postulate of the possibility of the *highest derived good* (the best world) is likewise the postulate of the reality of a *highest original good*, that is to say, of the existence of God. Now it was seen to be a duty for us to promote the *summum bonum;* consequently it is not merely allowable, but it is a necessity connected with duty as a requisite, that we should presuppose the possibility of this *summum bonum;* and as this is possible only on condition of the existence of God, it inseparably connects the supposition of this with duty; that is, it is morally necessary to assume the existence of God.

VI. — The Postulates of Pure Practical Reason

They all proceed from the principle of morality, which is not a postulate but a law, by which reason determines the will directly, which will, because it is so determined as a pure will, requires these necessary conditions of obedience to its precept. These postulates are not theoretical dogmas, but suppositions

practically necessary; while then they do [not] extend our speculative knowledge, they give objective reality to the ideas of speculative reason in general (by means of their reference to what is practical), and give it a right to concepts, the possibility even of which it could not otherwise venture to affirm.

These postulates are those *of immortality*, *freedom* positively considered (as the causality of a being so far as he belongs to the intelligible world), and the *existence of God*. The *first* results from the practically necessary condition of a duration adequate to the complete fulfilment of the moral law; the *second* from the necessary supposition of independence on the sensible world, and of the faculty of determining one's will according to the law of an intelligible world, that is, of freedom; the *third* from the necessary condition of the existence of the *summum bonum* in such an intelligible world, by the supposition of the supreme independent good, that is, the existence of God.

Thus the fact that respect for the moral law necessarily makes the *summum bonum* an object of our endeavours, and the supposition thence resulting of its objective reality, lead through the postulates of practical reason to conceptions which speculative reason might indeed present as problems, but could never solve. Thus it leads — 1. To that one in the solution of which the latter could do nothing but commit *paralogisms* (namely, that of immortality), because it could not lay hold of the character of permanence, by which to complete the psychological conception of an ultimate subject necessarily ascribed to the soul in self-consciousness, so as to make it the real conception of a substance, a character which practical reason furnishes by the postulate of a duration required for accordance with the moral law in the *summum bonum*, which is the whole end of practical reason. 2. It leads to that of which speculative reason contained nothing but *antinomy*, the solution of which it could only found on a notion problematically conceivable indeed, but whose objective reality it could not prove or determine, namely, the *cosmological* idea of an intelligible world and the consciousness of our existence in it, by means of the postulate of freedom (the reality of which it lays down by virtue of the moral law),

and with it likewise the law of an intelligible world, to which speculative reason could only point, but could not define its conception. 3. What speculative reason was able to think, but was obliged to leave undetermined as a mere transcendental *ideal*, viz. the *theological* conception of the first Being, to this it gives significance (in a practical view, that is, as a condition of the possibility of the object of a will determined by that law), namely, as the supreme principle of the *summum bonum* in an intelligible world, by means of moral legislation in it invested with sovereign power.

Is our knowledge, however, actually extended in this way by pure practical reason, and is that *immanent* in practical reason which for the speculative was only *transcendent?* Certainly, but *only in a practical point of view*. For we do not thereby take knowledge of the nature of our souls, nor of the intelligible world, nor of the Supreme Being, with respect to what they are in themselves, but we have merely combined the conceptions of them in the *practical* concept of the *summum bonum* as the object of our will, and this altogether *a priori*, but only by means of the moral law, and merely in reference to it, in respect of the object which it commands. But how freedom is possible, and how we are to conceive this kind of causality theoretically and positively, is not thereby discovered; but only that there is such a causality is postulated by the moral law and in its behoof. It is the same with the remaining ideas, the possibility of which no human intelligence will ever fathom, but the truth of which, on the other hand, no sophistry will ever wrest from the conviction even of the commonest man.

VII. — How is it Possible to Conceive an Extension of Pure Reason in a Practical Point of View, without its Knowledge as Speculative Being Enlarged at the Same Time?

In order not to be too abstract, we will answer this question at once in its application to the present case. In order to extend a pure cognition *practically*, there must be an *a priori purpose*

given, that is, an end as object (of the will), which independently on all theological principle is presented as practically necessary by an imperative which determines the will directly (a categorical imperative), and in this case that is the *summum bonum*. This, however, is not possible without pre-supposing three theoretical conceptions (for which, because they are mere conceptions of pure reason, no corresponding intuition can be found, nor consequently by the path of theory any objective reality); namely, freedom, immortality, and God. Thus by the practical law which commands the existence of the highest good possible in a world, the possibility of those objects of pure speculative reason is postulated, and the objective reality which the latter could not assure them. By this the theoretical knowledge of pure reason does indeed obtain an accession; but it consists only in this, that those concepts which otherwise it had to look upon as problematical (merely thinkable) concepts, are now shown assertorially to be such as actually have objects; because practical reason indispensably requires their existence for the possibility of its object, the *summum bonum*, which practically is absolutely necessary, and this justifies theoretical reason in assuming them. But this extension of theoretical reason is no extension of speculative, that is, we cannot make any positive use of it in a *theoretical point of view*. . . . The above three ideas of speculative reason are still in themselves not cognitions; they are however (transcendent) *thoughts*, in which there is nothing impossible. Now, by help of an apodictic practical law, being necessary conditions of that which it commands *to be made an object*, they acquire objective reality: that is, we learn from it *that they have objects*, without being able to point out how the conception of them is related to an object, and this, too, is still not a cognition of *these objects;* for we cannot thereby form any synthetical judgment about them, nor determine their application theoretically; consequently we can make no theoretical rational use of them at all, in which use all speculative knowledge of reason consists. Nevertheless, the theoretical knowledge, *not indeed of these objects*, but of reason generally, is so far enlarged by this, that by the practical

postulates *objects were given* to those ideas, a merely problematical thought having by this means first acquired objective reality. There is therefore no extension of the knowledge *of given supersensible objects*, but an extension of theoretical reason and of its knowledge in respect of the supersensible generally; inasmuch as it is compelled to admit *that there are such objects*, although it is not able to define them more closely, so as itself to extend this knowledge of the objects (which have now been given it on practical grounds, and only for practical use). For this accession, then, pure theoretical reason, for which all those ideas are transcendent and without object, has simply to thank its practical faculty. In this they become *immanent and constitutive*, being the source of the possibility of *realising the necessary object* of pure practical reason (the *summum bonum*); whereas apart from this they are transcendent, and merely *regulative* principles of speculative reason, which do not require it to assume a new object beyond experience, but only to bring its use in experience nearer to completeness. But when once reason is in possession of this accession, it will go to work with these ideas as speculative reason (properly only to assure the certainty of its practical use) in a negative manner: that is, not extending but clearing up its knowledge so as on one side to keep off *anthropomorphism*, as the source of *superstition*, or seeming extension of these conceptions by supposed experience; and on the other side *fanaticism*, which promises the same by means of supersensible intuition or feelings of the like kind. . . .

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When these ideas of God, of an intelligible world (the kingdom of God), and of immortality are further determined by predicates taken from our own nature, we must not regard this determination as a *sensualising* of those pure rational ideas (anthropomorphism), nor as a transcendent knowledge of *supersensible* objects; for these predicates are no others than understanding and will, considered too in the relation to each other in which they must be conceived in the moral law, and therefore only so far as a pure practical use is made of them. As to

all the rest that belongs to these conceptions psychologically, that is, so far as we observe these faculties of ours empirically *in their exercise* (*e. g.* that the understanding of man is discursive, and its notions therefore not intuitions but thoughts, that these follow one another in time, that his will has its satisfaction always dependent on the existence of its object, &c., which cannot be the case in the Supreme Being), from all this we abstract in that case, and then there remains of the notions by which we conceive a pure intelligence nothing more than just what is required for the possibility of conceiving a moral law. There is then a knowledge of God indeed, but only for practical purposes, and if we attempt to extend it to a theoretical knowledge we find an understanding that has *intuitions*, not thoughts, a will that is directed to objects on the existence of which its satisfaction does not in the least depend (not to mention the transcendental predicates, as, for example, a magnitude of existence, that is duration, which, however, is not in time, the only possible means we have of conceiving existence as magnitude). Now these are all attributes of which we can form no conception that would help to the *knowledge* of the object, and we learn from this that they can never be used for a *theory* of supersensible beings, so that on this side they are quite incapable of being the foundation of a speculative knowledge, and their use is limited simply to the practice of the moral law.

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VIII. — Of Belief from a Requirement of Pure Reason

A want of requirement of pure reason in its speculative use leads only to a *hypothesis;* that of pure practical reason to a *postulate;* for in the former case I ascend from the result as high as I please in the series of causes, not in order to give objective reality to the result (*e. g.* the causal connexion of things and changes in the world), but in order thoroughly to satisfy my inquiring reason in respect of it. Thus I see before me order and design in nature, and need not resort to speculation to assure myself of their *reality*, but to *explain* them I have *to pre-suppose*

a Deity as their cause; and then since the inference from an effect to a definite cause is always uncertain and doubtful, especially to a cause so precise and so perfectly defined as we have to conceive in God, hence the highest degree of certainty to which this pre-supposition can be brought is, that it is the most rational opinion for us men. On the other hand, a requirement of pure *practical* reason is based on a *duty*, that of making something (the *summum bonum*) the object of my will so as to promote it with all my powers; in which case I must suppose its possibility, and consequently also the conditions necessary thereto, namely, God, freedom, and immortality; since I cannot prove these by my speculative reason, although neither can I refute them. This duty is founded on something that is indeed quite independent on these suppositions, and is of itself apodictically certain, namely, the moral law; and so far it needs no further support by theoretical views as to the inner constitution of things, the secret final aim of the order of the world, or a presiding ruler thereof, in order to bind me in the most perfect manner to act in unconditional conformity to the law. But the subjective effect of this law, namely, the mental *disposition* conformed to it and made necessary by it, to promote the practically possible *summum bonum*, this pre-supposes at least that the latter is *possible*, for it would be practically impossible to strive after the object of a conception which at bottom was empty and had no object. . . .

Now since the promotion of this *summum bonum*, and therefore the supposition of its possibility, are *objectively* necessary (though only as a result of practical reason), while at the same time the manner in which we would conceive it rests with our own choice, and in this choice a free interest of pure practical reason decides for the assumption of a wise Author of the world; it is clear that the principle that herein determines our judgment, though as a want it is *subjective*, yet at the same time being the means of promoting what is *objectively* (practically) necessary, is the foundation of a *maxim* of belief in a moral point of view, that is, a *faith of pure practical reason.*

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JOHANN GOTTLIEB FICHTE
(1762–1814)

FIRST INTRODUCTION INTO THE SCIENCE OF KNOWLEDGE

Translated from the German * *by*
BENJAMIN RAND

I.

ATTEND to thyself; turn thy glance away from all that surrounds thee and upon thine own innermost self. Such is the first demand which philosophy makes of its disciples. We speak of nothing that is without thee, but wholly of thyself.

In the most fleeting self-observation every one must perceive a marked difference between the various immediate determinations of his consciousness, which we may also call representations. Some of them appear entirely dependent upon our freedom, and it is impossible for us to believe that there is anything without us corresponding to them. Our imagination, our will, appears to us as free. Others, however, we refer to a truth, as their model, which is held to be established, independent of us; and in the attempt to determine such representations, we find ourselves conditioned by the necessity of their harmony with this truth. In the knowledge of their contents we do not consider ourselves free. In brief, we can say, some of our representations are accompanied by the feeling of freedom, others by the feeling of necessity.

The question cannot reasonably arise: Why are the representations, which are directly dependent upon our freedom, determined in precisely this manner and not otherwise? For when it is affirmed that they are dependent upon our freedom, all application of the conception of a ground is dismissed; they

* From *Erste Einleitung in die Wissenschaftslehre* in *Philosophisches Journal*, Bd. v, 1797, pp. 1–47; *id., Sämmtliche Werke,* Berlin, 1845, i, pp. 422–436.

are thus, because I have so determined them, and if I had determined them otherwise, then they would be different. But it is certainly a question worthy of reflection: What is the ground of the system of those representations which are accompanied by the feelings of necessity and of that feeling of necessity itself? To answer this question is the task of philosophy; and, in my opinion, nothing is philosophy but the science which solves this problem. The system of those representations which are accompanied by the feeling of necessity is also called *experience:* internal as well as external experience. Philosophy has therefore — to express the same thing in other words — to discover the ground of all experience.

Only three distinct objections can be raised against what has here been stated. Some one might deny that representations, accompanied by the feeling of necessity, and referred to a truth determined without our aid, are ever present in our consciousness. Such a person would either make the denial against better knowledge or be differently constituted from other men. In the latter case there would also be nothing for him that he denied, and hence no denial. We could therefore dismiss his protest without further ceremony. Or some one might say: the question raised is entirely unanswerable, we are and must remain in insuperable ignorance concerning it. To enter upon an argument with such a person is wholly superfluous. He is best refuted by an actual answer to the question; then all he can do is to test our attempt and to state where and why it appears to him insufficient. Finally, some one might dispute about the designation, and assert: Philosophy is something else, or at least something more, than what you have above stated. It might easily be proved to such a one, that scholars have at all times regarded exactly what has here been stated, to be philosophy, and that whatever else he might set up for it has already another name; that if this word is to signify anything at all, it must mean precisely this particular science.

Since, however, we are unwilling to enter upon any unfruitful controversy about words, we have on our part already abandoned the name of philosophy, and have called the science which

has, properly speaking, the solution of the problem here indi cated for its object, the *Science of Knowledge*.

2.

Only when speaking of something regarded as accidental, that is, which we suppose might also have been otherwise, though it was not determined by freedom, can we inquire concerning a ground. And precisely because of this asking concerning its ground does it become accidental to the inquirer. The problem involved in seeking the ground of anything means to find something else, from the special nature of which it can be seen why the accidental, among the manifold determinations which might have come to it, assumed precisely the one it did. The ground lies, by virtue of the mere thought of a ground, outside of that which is grounded; and both are, in so far as they are the ground and the grounded, opposed to each other, related to each other, and thus the latter is explained from the former.

Now philosophy seeks to discover the ground of all experience; hence its object lies necessarily *beyond all experience.* This proposition applies to all philosophy, and has also actually been so applied, down to the period of the Kantians and their facts of consciousness, that is, of inner experience.

No objection can be raised against the proposition here set forth; for the premise to our conclusion is a mere analysis of the above-stated conception of philosophy and from it the conclusion is drawn. If some one possibly should remind us that the conception of a ground must be differently explained, we certainly could not prevent him from forming another conception of it if he chooses; but we affirm with equal right, that in the above description of philosophy we wish nothing else to be understood by that word but what has been stated. Hence, if this meaning is not permitted, the possibility of philosophy, as we have described it, must be altogether denied; and to such a denial we have already made reply in our first section.

3.

The finite intelligence has nothing outside of experience. This it is that yields the entire material of its thinking. The philoso-

pher is subject necessarily to similar conditions, and hence it appears inconceivable how he can raise himself above experience.

But he can abstract; that is to say, he can separate by the freedom of thinking what is united in experience. In experience, *the thing*, or, that which is to be determined independently of our freedom and in accordance with which our knowledge is to shape itself, and *the intelligence*, or that which is to acquire a knowledge of it, are inseparably united. The philosopher may abstract from both, and if he does, he has abstracted from experience and lifted himself above it. If he abstracts from the first, he retains an intelligence *in itself*, that is, abstracted from its relation to experience; if he abstracts from the latter, he retains the thing *in itself*, that is, abstracted from the fact that it occurs in experience. He thus retains either the intelligence in itself, or the thing-in-itself, as the ground of explanation of experience. The former mode of procedure is called *Idealism*, the latter *Dogmatism*.

Only these two philosophical systems (and of that these remarks should convince everybody) are possible. According to the first system, the representations which are accompanied by the feeling of necessity are products of the intelligence, which must be presupposed in their explanation; according to the latter system they are products of a thing in itself, which must be presupposed to explain them. If any one desired to dispute this position, he would have to prove either that there is still another way to transcend experience than by means of abstraction, or that there exist in the consciousness of experience more than the two components just mentioned. Now, in regard to the first, it will appear below that what we have here called intelligence is actually present under another name in consciousness, and therefore is not something entirely produced by abstraction; but it will at the same time be shown that the consciousness of it is conditioned by an abstraction, which is wholly natural to mankind.

It will not be denied that it is possible to frame an entire system from fragments of these dissimilar systems, and that this illogical labor has actually very often been undertaken; but it is denied that more than these two systems are possible in any logical mode of procedure.

4.

Between the object (we shall call the explanatory ground of experience affirmed by a philosophy the *object of that philosophy*, since it appears to be only through and for such philosophy) of *idealism* and that of *dogmatism* there is a remarkable distinction in reference to their relation to consciousness. Everything of which I am conscious is called object of consciousness. There are three ways in which the object can be related to consciousness. Either the object appears to have been produced by the representation, or as existing without its aid; and in the latter case, either also as determined in regard to its structure, or as present merely with respect to its existence, but determinable in regard to its structure by the free intelligence.

The first relation applies merely to an imaginary object, whether with or without purpose; the second applies to an object of experience; and the third applies only to an object, which we shall forthwith describe.

I can determine myself by freedom to think this or that; for example, the thing-in-itself of the dogmatist. Now if I abstract from the thought and look simply upon myself, then I myself become the object of a particular representation. That I appear to myself as determined in precisely this manner and not otherwise, *e. g.*, as thinking, and among all possible thoughts as thinking just the thing-in-itself, is in my opinion to depend upon my freedom of self-determination: I have made myself such an object of my own free will. I have not, however, made myself, but I am compelled to presuppose myself as determinable through this self-determination. I am therefore myself my own object, the determinate character of which depends under certain conditions altogether upon intelligence, but the existence of which must always be presupposed.

Now this very I in itself is the object of Idealism. The object of this system does not occur actually as something real in consciousness, as a *thing in itself*, — for then idealism would cease to be what it is, and would be transformed into dogmatism, — but it does appear as *I in itself*. It occurs not as object of experience, — for it is not determined, but is solely determinable

through me, and without this determination it would be nothing at all, — but it appears as something raised above all experience.

The object of dogmatism, on the contrary, belongs to the objects of the first class, which are produced wholly by free thinking. The thing-in-itself is a mere invention, and has no reality at all. It does not occur in experience, for the system of experience is nothing else than thinking accompanied by the feeling of necessity; it cannot even be pretended to be anything else by the dogmatist, who, like every philosopher, has to give an explanation of it. The dogmatist, indeed, desires to assure reality to it, through the necessity of thinking it as the ground of all experience; and he would succeed, if he could prove that experience thereby can be, and can thereby only be explained. But this is the very question in dispute, and he cannot presuppose what must first be proved.

The object of idealism thus has the advantage over that of dogmatism, inasmuch as it is not to be deduced as the ground of explanation of experience, — which would be a contradiction and would transform this system itself into a part of experience, — but is nevertheless to be referred to as a part of consciousness. Whereas, the object of dogmatism can assume to be nothing but a mere invention, which attains realization only through the success of the system. This is cited merely to promote a clearer insight into the distinction between the two systems; but not to draw therefrom an argument against the latter system. That the object of every philosophy, as the explanatory ground of experience, must be beyond experience, is demanded by the very nature of philosophy, and is far from being derogatory to a system. But we have as yet discovered no reason why that object should be present also in a particular manner in consciousness.

If anybody should remain unconvinced of the truth of what has just been said, it still would not be impossible to convince him of the truth of the whole system, since the foregoing has only been incidental. Nevertheless, in conformity with our plan, we will also here take into consideration possible objections. Some one might deny the immediate self-consciousness affirmed to be

in every free act of the mind. Such a one we have only again to remind of the conditions of it above specified. This self-consciousness neither obtrudes itself, nor comes of its own accord; one must really have a free act, and then abstract from the object and attend entirely to one's self. No one can be compelled to do this, and also if he professes to have done it, one cannot know whether he has proceeded correctly. In a word, this consciousness cannot be proved to any one; but every one must produce it with freedom in himself. Against the second affirmation, that the thing-in-itself is a mere invention, an objection could only be made, because one misunderstood it. Such a one we would refer back to the preceding description of the origin of this conception.

5.

Neither of these two systems can directly refute the other; for their controversy is one about the first underivable principle. Each refutes the other, if only you admit its own first principle as established. Each denies everything to the opposite; and they have no point in common whereby they can attain a mutual understanding and reconciliation. Though they appear to agree on the words of a proposition, yet each one takes them in a different sense.

First of all, idealism cannot refute dogmatism. The former system, indeed, has, as we have seen, the advantage over the latter of being able to establish its explanatory ground of experience — the free acting intelligence — as a fact of consciousness. This fact the dogmatist must also concede to him, for otherwise he would render himself incapable of any further dealing with his opponent; but he transformed, however, the ground of explanation by a correct inference from his principle into an appearance and illusion, and thus disqualifies it for becoming an explanatory ground of anything else, since it cannot maintain its own existence in its own philosophy. According to the dogmatist everything that presents itself to our consciousness is a product of a thing-in-itself, — even our pretended determinations by means of freedom, and the belief that we are free. This belief is produced in us by the effect upon ourselves of the Thing,

and the determinations which we deduced from our freedom are similarly caused by it. Only, we are not aware of it in these instances, and hence ascribe it to no cause, that is, to our freedom. Every consistent dogmatist is necessarily a fatalist; he does not deny the fact of consciousness, that we regard ourselves as free, for this would be against all reason; but he proves from his principle the falsity of this view. He denies the independence of the Ego upon which the idealist builds, and makes it merely a product of the thing, an *accident* of the world; hence the consistent dogmatist is necessarily also a materialist. He can only be refuted by the postulate of the freedom and independence of the ego; but this is directly what he denies.

Even as little can the dogmatist refute the idealist.

The principle of the former, the thing-in-itself, is nothing, and, as the defenders of it must admit, has no reality beyond that which it receives from the fact that experience can only be explained by it. But the idealist destroys this proof by explaining experience in another way, hence by denying precisely what the dogmatist assumes. The thing-in-itself is a complete chimera. There is no further reason why it should be assumed; and with its disappearance the entire structure of dogmatism falls.

From what has just been stated there follows likewise the absolute irreconcilability of the two systems; since the results of the one destroy those of the other. Wherever their union has been attempted the members would not fit into one another, and somewhere an enormous gap has appeared. Any one who would deny the truth of this position must prove the possibility of such a union, that is, of a union which consists in a perpetual transition from matter to spirit, or, what is entirely the same, from necessity to freedom.

Since so far as we can perceive at present both systems appear to have the same speculative value, and since both cannot stand together, nor yet either of the two convince the other, it becomes a very interesting question what induces persons who comprehend this — and it is easily understood — to prefer the one to the other; and why it happens that scepticism, as the

total renunciation of a reply to this problem, does not become universal.

The dispute between the idealist and the dogmatist is precisely the question whether the independence of the Ego is to be sacrificed to that of the thing, or *vice versa.* What, then, is it which compels a reasonable man to decide in favor of the one or the other?

The philosopher discovers from the foregoing point of view, —which is one where he must necessarily place himself if he is to be regarded as a philosopher, and which every man, in the progress of thinking, must necessarily sooner or later occupy, — nothing further *than that he must represent to himself* both that he is free, and that there are determined things outside of him. It is, however, impossible for him to stop at this thought; the thought of the mere representation is only a half-thought, a broken fragment of a thought. Something must be thought in addition as corresponding to the representation independent of it. In other words, the representation cannot exist by itself, — it is something only in connection with something else, and in itself it is nothing. It is this necessity of thought which forces one from that point of view to the question, What is the ground of the representations? or, which is entirely the same, What is that which corresponds to them?

Now the representation of the independence of the Ego and that of the thing can exist certainly together; but not the independence itself of both. Only one can be the first, the beginning, the independent; the second, by the very fact of being second, is necessarily dependent upon the first, with which it is to be connected.

Now which of the two is to be made the first? Reason affords no ground for a decision; for the question does not relate to the connecting of one link with another, where alone the grounds of reason extend; but to the beginning of the entire succession, which as an absolute first act is wholly dependent upon the freedom of thinking. The decision is therefore entirely arbitrary; and since the arbitrariness must have a cause, the decision is dependent upon *inclination* and *interest.* The last ground of the

distinction between the dogmatist and the idealist is consequently the difference of their interest.

The highest interest, and hence the ground of all other interest, is that *for ourselves*. Thus with the philosopher. Not to lose his Self in his reasoning, but to retain and to assert it, this is the interest which unconsciously guides all his thinking. Now, there exist two grades of mankind; and in the progress of our race, before the last grade has been universally attained, two chief classes of men. The one class consist of those who have not raised themselves to the full feeling of their freedom and of absolute independence, but who are merely conscious of themselves in the representations of outward things. These have only a desultory self-consciousness, bound up with outward objects, and collected from their manifoldness. The image of their Self is reflected to them only from the things, as from a mirror. If the latter be taken from them, then they lose the Self at the same time. For their own sake, they cannot give up the belief in the independence of things, since they exist only together with these things. Whatever they are they have actually become through the external world. Whosoever is only a product of the things will never view himself in any other manner, and he is entirely correct, so long as he speaks merely of himself and of those like him. The principle of the dogmatist is: belief in the things for their own sake; hence, a mediated belief in his own desultory Self, as merely the result of the things.

But whosoever becomes conscious of his self-existence and independence from all outward things — and this one can only become by making something of one's self, by means of one's own self, independently of all external things — needs no longer the things in support of his Self, and cannot use them, because they destroy his self-existence and transform it into an empty appearance. The Ego, which he possesses, and which interests him, destroys that belief in the things; he believes in his independence from inclination, and lays hold of it with affection. His belief in himself is immediate.

From this interest can be explained the various passions which commonly mingle with the defence of these philosophical

systems. The dogmatist is actually in peril of losing his Self when his system is attacked; and yet he is not armed against this attack, because there is something in his inmost self which takes the side of the assailant; hence he defends himself with heat and bitterness. The idealist, on the contrary, cannot well refrain from looking down with disesteem upon the dogmatist, who can tell him nothing which he first has not long since known and thrown aside as useless, inasmuch as one arrives at idealism, if not through dogmatism itself, yet at least by the disposition thereto. The dogmatist gets angry, misconstrues, and would persecute, if he had the power; the idealist is cold, and inclined to ridicule the dogmatist.

What kind of a philosophy one chooses depends consequently upon what kind of a man one is; for a philosophical system is not a piece of dead household furniture, which one can use or lay aside at pleasure, but is animated by the soul of the man who has it. A person of a naturally indolent character, or who has become weak-minded and perverted through intellectual slavery, scholarly luxury, and vanity, will never elevate himself to idealism.

You can reveal to the dogmatist the inadequacy and inconsequence of his system; you can confuse and terrify him from all sides; but you cannot convince him, because he is unable quietly and coolly to hear and to examine what he cannot tolerate. If idealism should prove to be the only true philosophy, it will also appear that a man must be born a philosopher, be educated to be one, and educate himself to be one; but that by no human art can one be made a philosopher. Hence this science of knowledge expects few proselytes among men whose mental habits have already been moulded; but its hopes are centred in the rising generation, whose native vigor has not yet been impaired by the intellectual laxness of the present age.

THE SCIENCE OF KNOWLEDGE

Translated from the German * *by*
A. E. KROEGER

"THE FUNDAMENTAL PRINCIPLES OF KNOWLEDGE"

§ 1. *FIRST AND ABSOLUTELY UNCONDITIONED FUNDAMENTAL PRINCIPLE*

WE have to *search for* the absolute, first, and unconditioned fundamental principle of human knowledge. It cannot be *proven* nor *determined* if it is to be absolute first principle.

This principle is to express the *deed-act* which does not occur among the empirical determinations of our consciousness, nor can so occur, since it is rather the basis of all consciousness, and first and alone makes consciousness possible. In representing this deed-act it is not so much to be feared that my readers will *not* think what they ought to think, as that they will think what they ought not to think. This renders necessary a *reflection* on what may perhaps for the present be taken for the deed-act, and an *abstraction* from all that does not really belong to it.

Even by means of this abstracting reflection, that deed-act which is not empirical *fact* of consciousness cannot become fact of consciousness; but by means of this abstracting reflection we may recognize so much: that this deed-act must necessarily be *thought* as the basis of all consciousness.

The laws [1] according to which this deed-act must necessarily be thought as basis of human knowledge, or, which is the same, the rules by which that abstracting reflection proceeds, have not yet been proven as valid, but are for the present tacitly presupposed as well-known and agreed upon. As we proceed we shall

* From J. G. Fichte's *Grundlage der gesammten Wissenschaftslehre*, Jena and Leipzig, 1794. Reprinted here from J. G. Fichte's *The Science of Knowledge*, translated by A. E. Kroeger, London, Trübner & Co., 1889, pp. 63–84.

[1] The laws of general logic.

deduce them from that fundamental principle, the establishment whereof is correct only if they are correct. This is a circle, but an unavoidable circle. And since it is unavoidable and freely admitted, it is also allowable to appeal to all the laws of general logic in establishing this highest fundamental principle.

In undertaking this abstracting reflection we must start from some proposition which every one will admit without dispute. Doubtless there are many such. We choose the one which seems to us to open the shortest road to our purpose.

In admitting this proposition, the deed-act, which we intend to make the basis of our whole science of knowledge, must be admitted; and the reflection must show that this deed-act is admitted the moment that proposition is admitted.

Our course of proceeding in this reflection is as follows: Any fact of empirical consciousness, admitted as such valid proposition, is taken hold of, and from it we separate one of its empirical determinations after the other, until only that remains, which can no longer be separated and abstracted from.

As such admitted proposition we take this one: A is A.

Every one admits this proposition, and without the least hesitation. It is recognized by all as completely certain and evident.

If any one should ask a proof of its certainty, no one would enter such a proof, but would say: This proposition is *absolutely* (that is, *without any further ground*) *certain*; and by saying this would ascribe to himself the power of *absolutely positing something.*

In insisting on the in-itself certainty of the above proposition, you posit *not* that A *is*. The proposition A is A is by no means equivalent to A *is*. (*Being* when posited without predicate is something quite different from being when posited with a predicate.) Let us suppose A to signify a space inclosed within two straight lines, then the proposition A is A would still be correct; although the proposition A *is* would be false, since such a space is impossible.

But you posit by that proposition: *If* A is, *then* A is. The question *whether* A is at all or not, does not, therefore, occur in it.

The *content* of the proposition is not regarded at all: merely its *form*. The question is not whereof you know, but *what* you know of any given subject. The only thing posited, therefore, by that proposition is the *absolutely* necessary connection between the two A's. This connection we will call X.

In regard to A itself nothing has as yet been posited. The question, therefore, arises: Under what condition *is* A?

X at least is in the Ego, and posited *through* the Ego, for it is the Ego which asserts the above proposition, and so asserts it by the virtue of X as a law, which X or law must, therefore, be given to the Ego; and, since it is asserted absolutely, and without further ground, must be given to the Ego through itself.

Whether and *how* A is posited we do not know; but since X is to designate a connection between an unknown positing of A (of the first A in the proposition A is A) and a positing of the same A, which latter positing is absolute on condition of the first positing, it follows that A, *at least in so far as that connection is posited*, is posited *in* and *through* the Ego, like X. Proof: X is only possible in relation to an A; now X is really posited in the Ego, hence, also, A must be posited in the Ego, in so far as X is related to it.

X is related to that A, in the above proposition, which occupies the logical position of subject, and also to that A which is the predicate, for both are united by X. Both, therefore, are posited in the Ego, in so far as they are posited; and the A of the predicate is posited *absolutely* if the first one is posited. Hence the above proposition may be also expressed: If A is posited *in the Ego*, then *it is posited*, or then it *is*.

Hence, by means of X, the Ego posits: that A *is* absolutely for the asserting Ego, and *is* simply because it is posited in the Ego; or that there is something in the Ego which always remains the same, and is thus able to connect or posit; and hence the absolutely posited X may also be expressed Ego = Ego, or I am I.

Thus we have already arrived at the proposition *I am;* not as an expression of a deed-act, it is true, but, at least, as expression of a *fact*.

For X is absolutely posited; this is a fact of empirical conscious-

ness, as shown by the admitted proposition. Now, X signifies the same as I am I; hence, this proposition is also absolutely posited.

But Ego is Ego, or I am I, has quite another significance than A is A. For the latter proposition had content only on a certain condition, namely, *if* A is posited. But the proposition I am I is unconditionally and absolutely valid, since it is the same as X; it is valid not only in form, but also in content. In it the Ego is posited not on condition, but absolutely, with the predicate of self-equality; hence it is posited, and the proposition may also be expressed, *I am.*

This proposition, *I am,* is as yet only founded upon a fact, and has no other validity than that of a fact. If "A = A" (or X) is to be certain, then "I am" must also be certain. Now, it is a fact of empirical consciousness that we are compelled to regard X as absolutely certain; hence, also, "I am" is certain, since it is the ground of the X. It follows from this, that the *ground of explanation of all facts of empirical consciousness is this : before all positing, the Ego must be posited through itself.*

(I say of *all* facts; and to prove this I must show that X is the highest fact of empirical consciousness, is the basis of all others, and contained in all other facts; which, perhaps, would be admitted by all men without proof, although the whole science of knowledge busies itself to prove it.)

The proposition A = A is *asserted.* But all asserting is an act of the human mind; for it has all the conditions of such an act in empirical consciousness, which must be presupposed as well known and admitted in order to advance our reflection. Now, this act is based on something which has no higher ground, namely, X or I am.

Hence, that which is *absolutely posited and in itself grounded* is the ground of *a certain* (we shall see hereafter of *all*) acting of the human mind; hence its pure character; the pure character of activity in itself, altogether abstracting from its particular empirical conditions.

The positing of the Ego through itself is, therefore, the pure activity of the Ego. The Ego *posits itself;* and the Ego is by

virtue of this its mere self-positing. Again *vice versa :* the Ego *is* and *posits* its being, by virtue of its mere being. It is both the acting and the product of the act; the active and the result of the activity; deed and act, in one; and hence the *I am* is expressive of a deed-act; and of the *only possible* deed-act, as our science of knowledge must show.

Let us again consider the proposition *I am I.* The Ego is absolutely posited. Let us assume that the first Ego of this proposition (which has the position of formal subject) is the *absolutely posited* Ego, and that the second Ego (that of the predicate) is the *being* Ego; then the absolutely valid assertion that both are one signifies: the *Ego* is, *because* it has posited itself.

(This is, indeed, the case according to the logical form of the proposition. In A = A the first A is that which is posited in the Ego (either absolutely, like the Ego itself, or conditionally, like any non-Ego); and in this positing of A the Ego is absolute subject; and hence the first A is also called the subject. But the second A designates that which the Ego, in now making itself the object of its own reflection, discovers thus *as* posited in itself (since it has just before itself posited the A in itself). The Ego in asserting that proposition A = A, predicates in truth not something of A, but of itself, namely, that it has found an A posited in itself; and hence the second A is called predicate.)

The Ego in the former and the Ego in the latter significance are to be absolutely equal. Hence, the above proposition may be turned around, and then it reads: The Ego posits itself simply *because* it is. It posits itself through its mere being, and *is* through its mere being posited.

This, then, will explain clearly in what significance we here use the word Ego (I), and will lead us to a definite explanation of the Ego as absolute subject. The Ego as absolute subject is *that, the being (essence) whereof consists merely in positing itself as being.* As soon as it posits itself, it is; and as soon as it is, it posits itself; and hence the Ego is for the Ego absolute and necessary. Whatsoever is not for itself is not an Ego.

ILLUSTRATION

The question has been asked, What *was* I before I became self-conscious? The answer is, I was not at all, for I was not I. The Ego is only, in so far as it is conscious of itself. The possibility of that question is grounded upon a mixing up of the Ego as *subject*, and the Ego as *object* of the reflection of the absolute subject; and is in itself altogether improper. The Ego represents itself and in so far takes itself up in the form of representation, and now first becomes a *somewhat*, that is, an object. Consciousness receives in this form of representation a substrate, which *is*, even without the real consciousness, and which, moreover, is thought bodily. Such a condition is thought, and the question asked, *What* was the Ego at that time? that is, what is the substrate of consciousness? But even in this thought you unconsciously *add in thinking* the *absolute subject* as looking at that substrate; and hence you unconsciously add in thought the very thing whereof you wanted to abstract, and thus you contradict yourself. The truth is, you cannot think any thing at all without adding in your thought your Ego as self-conscious; you cannot abstract from your self-consciousness; and all questions of the above kind are not to be answered, since, maturely considered, they cannot be asked.

If the Ego *is* only in so far as it posits itself, then it also is only *for* the positing, and posits only for the being Ego. The *Ego is for the Ego;* but if it posits itself absolutely, as it is, then it posits itself necessarily, and is necessary for the Ego. *I am only for me; but for me, I am* necessarily. (By saying *for me*, I already posit my being.)

To posit itself and *to be* is, applied to the Ego, the same. Hence, the proposition I am because I have posited myself can also be expressed: I *am absolutely because I am.*

Again, the Ego as positing itself and the Ego as being are one and the same. The Ego is as *what* it posits itself, and posits itself as *what it is*. Hence, *I am absolutely what I am.*

The immediate expression of the thus developed deed-act may

be given in the following formula: *I am absolutely because I am, and I am absolutely what I am for myself.*

If this narration of the original deed-act is to be placed at the head of a science of knowledge as its highest fundamental principle, it may perhaps be best expressed thus: —

The Ego Posits Originally Its Own Being.

(In other words, the Ego is necessarily identity of subject and object; it is itself subject-object; and it is this without further mediation.)

We started from the proposition A = A, not as if the proposition, I am, could be proven by it, but because we had to start from some one certain proposition, given in empirical consciousness. And our development, also, has shown that A = A does not contain the ground of "I am," but, on the contrary, that the latter proposition is the ground of the former.

By abstracting from the content of the proposition I am, and looking merely to its form, namely, the form of drawing a conclusion from the being posited of something to its being, as we must abstract for the sake of logic, we thus obtain as *fundamental principle of logic* the proposition A = A, which can only be proven and determined through the science of knowledge. *Proven :* for A is A because the Ego which has posited A is the same as the Ego in which A is posited. *Determined :* for whatever is, is only in so far as it is posited in the Ego, and there is nothing outside of the Ego. No possible A (no *thing*) can be any thing else but an A posited in the Ego.

By abstracting, moreover, from all asserting as a determined acting, and looking merely to the general *manner* of acting of the human mind, which is given through that form, we obtain the *category of reality.* Every thing to which the proposition A = A is applicable has reality, *in so far as that proposition is applicable to it.* That which is posited through the mere positing of any thing (in the Ego) is its reality, its essence.

Remarks

Kant, in his deduction of the categories, has hinted at our proposition as absolute fundamental principle of all knowledge;

but he has never definitely established it *as* fundamental principle. Before Kant, Descartes has suggested a similar one, *Cogito, ergo sum;* which, however, is not necessarily the *minor* and conclusion of a syllogism, of which the *major* would have to be, *Quodcunque cogitat, est;* but which he may also have viewed as immediate fact of consciousness. In that case it would signify, *Cogitans sum, ergo sum* (or, as we should say, *Sum, ergo sum*). But in that case the word *cogitans* is completely superfluous; you do not *think* necessarily when you *are*, but you are necessarily when you think. Thinking is not the essence, but merely a particular determination of the Ego; and there are many other determinations of the Ego.

Reinhold speaks of representation, and his fundamental principle would read in the Cartesian form, *Repraesentio, ergo sum;* or, more correctly, *Repraesentans sum, ergo sum.* He goes considerably further than Descartes, but not far enough; for representation, also, is not the essence of the Ego, but merely a particular determination of the Ego; and there are many other determinations of the Ego, *although they certainly must pass through the medium of representation in order to enter empirical consciousness.*

Spinoza, on the other hand, goes beyond our proposition in its established significance. He does not deny the unity of empirical consciousness, but he utterly denies its pure consciousness. According to him the whole series of representations of a single empirical subject is related to the only one pure subject, as a single representation is related to the whole series. In his view the Ego (that is, that which he calls *his* Ego, or which I call my *Ego*) is not absolutely *because* it is, but because *something else* is. True, he considers the Ego to be Ego *for* the Ego; but he asks what it may be for something outside of the Ego. Such an "outside of the Ego" would also be an Ego, of which the posited Ego (for instance, *my* Ego) and all possible Egos would be modifications. He separates the *pure* and the *empirical* consciousness. The first he posits in God, who never becomes self-conscious, since pure consciousness never attains consciousness; the latter he posits in the particular modifications of the

Godhead. His system, thus established, is perfectly logical and not to be refuted, because he has entered a sphere where reason cannot follow him; but his system is also groundless, for what justified him in going beyond the pure consciousness given in empirical consciousness?

§ 2. *SECOND, AND IN REGARD TO ITS CONTENT, CONDITIONED FUNDAMENTAL PRINCIPLE*

For the same reason that the first fundamental principle could not be proven or deduced, the second, also, cannot be proven. Hence, we here also proceed from a fact of empirical consciousness in the same manner.

The proposition not A is not A will doubtless be recognized by every one as certain, and it is scarcely to be expected that any one will ask for its proof.

If, however, such a proof were possible, it must in our system be deduced from the proposition A = A.

But such a proof is impossible. For let us assume, at the utmost, that the above proposition is the same as −A is −A (and hence that −A is equal to some Y posited in the Ego), and that for this reason our proposition signifies now: *if* the opposite of A is posited, *then* it is posited; still we should only have the same connection posited (X) which we obtained in our § 1, and our proposition, −A is not A, instead of being derived from A = A, would, after all, be only the very same proposition. The chief question, *Is* the opposite of A posited, and under what condition *of form of mere acting* is it posited? is altogether ignored. If our second proposition were a derived one, then this condition of the form of acting would have to be derived from the proposition A = A. But how can the proposition A = A, which involves only the form of positing, also involve the form of oppositing? Hence, that form of acting, the oppositing, is posited absolutely, and with no attached condition. −A is posited *as* such simply *because* it is posited.

Hence, as sure as the proposition −A not = A occurs among the facts of empirical consciousness, there occurs among the

acts of the Ego an *oppositing ;* and this oppositing, as far as its *form* is concerned, is absolutely and unconditionally possible, and is an acting which has no higher ground.

Through this absolute act the opposite, *as mere* opposite, is posited. Every opposite, in so far as it is merely opposite, is simply by virtue of an absolute act of the Ego, and has no other ground. Opposition generally is simply posited through the Ego.

But if any −A is to be posited, an A must be posited. Hence, the act of oppositing is also, in another respect, conditioned. Whether the act at all is possible depends upon another act; hence, the act in its *content,* as acting generally, is conditioned; it is an acting in relation to another acting. The *form* of the act, however, (the How? namely, that it is not an act of positing, but of oppositing,) is unconditioned.

(Opposition is only possible on condition of the unity of consciousness of the positing and the oppositing. For if the consciousness of the first act were not connected with that of the second, then the second positing would not be an *op*-positing, but an absolute positing. Oppositing it becomes only through its relation to a positing.)

As yet we have only spoken of the act, as mere act, of the *manner* of acting. Let us now examine its product, = −A.

In −A we can again distinguish *form* and *content.* Through the form is determined, that it is an *opposite ;* the content determines that it is an opposite of a determined something (of A), that it is *not* this something.

The *form* of −A is determined simply through the act; it is an opposite because it is product of an oppositing; the *content* is determined through A: it is *not* what A is, and its whole essence consists in this, that it is not what A is. I know of −A simply *that* it is the opposite of A. But *what* that is *whereof* I know this, I can only know by knowing A.

Originally only the Ego is posited, and this alone is absolutely posited. (§ 1.) Hence, an absolute oppositing can only refer to the Ego. The opposite of the Ego we call *Non-Ego.*

As sure as the proposition −A is not A is unconditionally admitted as a fact of empirical consciousness, *a non-Ego is ab-*

solutely opposited to the Ego. All we have said above in reference to oppositing generally is deduced from this original oppositing, and hence is valid for it; it is, therefore, unconditioned in form, but conditioned in content. And thus we have also found the second principle of all human knowledge.

Whatever appertains to the Ego, of that the opposite must appertain to the non-Ego.

(The general opinion is, that the conception of the non-Ego is a discursive conception, obtained by abstracting from all objects of representation. But the foolishness of this explanation can be easily demonstrated. If I am to represent an object, I must posit it in opposition to the representing subject. Now, it is true that in the object of representation there can and must be an X, whereby it discovers itself to be not the representing, but a represented; but no object of representation can possibly teach one, that every thing wherein this X occurs is represented object, and not representing subject. Now, it is true that in the object of representation there can and must be an X, whereby it discovers itself to be not the representing, but a represented; but no object of representation can possibly teach me, that every thing wherein this X occurs is represented object, and not representing subject; on the contrary, only by presupposing the law do I attain any object.)

By undertaking the same abstraction with this proposition, which we undertook with the first, we obtain the logical proposition −A is not A, which I should call the proposition of *oppositing.* In the present place, this proposition cannot yet be properly determined, or expressed in a formula, the reason whereof will appear in the following section.

By abstracting from the determined act of asserting this proposition, and looking merely to the form of drawing a conclusion from the being opposited of something to its being, we obtain the *category of negation.* This also cannot be clearly developed till in the following section.

§ 3. *THIRD, IN ITS FORM CONDITIONED FUNDAMENTAL PRINCIPLE.*

Every step we take in our science brings us nearer to the point where every thing can be proven. In the first principle, nothing could be nor was to be proven; in the second, only the *act of oppositing* was not provable; but this act once admitted, it was strictly shown that the opposite must be a Non-Ego. The third principle is almost throughout capable of proof, since it is not, like the second, conditioned in content, but only in form by the *two* foregoing propositions.

It is conditioned in form signifies, the *problem of the act* it establishes is given by the two foregoing propositions, but not the *solution* of the problem. The solution is the result of an unconditioned and absolute act of reason.

We therefore commence with a deduction, and proceed as far as we can go. When we can go no further, we shall have to appeal to this absolute act.

1. In so far as the Non-Ego is posited, the Ego is not posited; for the Non-Ego completely cancels the Ego.

Now, the Non-Ego is posited *in* the Ego, for it is opposited; and all oppositing presupposes the identity of the Ego.

Hence, the Ego is not posited in the Ego in so far as the Non-Ego is posited in it.

2. But the Non-Ego can only be posited in so far as an Ego is posited in the Ego, (in the identical consciousness,) as the opposite of which it is posited.

Hence, in so far as the Non-Ego is posited in the Ego, the Ego also must be posited in it.

3. The conclusions of our 1st and 2d are opposed to each other; yet both are developed from the second fundamental principle; hence, that second principle is opposed to itself and cancels itself.

4. But it cancels itself only in so far as the posited is canceled by the opposited, hence in so far as itself is valid.

Hence, it does not cancel itself. The second fundamental principle cancels itself and does not cancel itself.

5. If this is the case with the second principle, it must also be with the first principle. That first principle cancels itself and does not cancel itself. For,

If Ego is = Ego, then all is posited, which is posited in the Ego.

Now, the second principle is to be posited and not to be posited in the Ego.

Hence, Ego is not = Ego, but Ego is = to the Non-Ego, and Non-Ego = Ego.

All these results have been deduced from the established principles according to the laws of reflection presupposed as valid; they must be correct, therefore. But if they are correct, the identity of consciousness, the only absolute foundation of our knowledge, is canceled. This determines our problem. We must find an X, by means of which all these results may be correct, without destroying the identity of consciousness.

1. The opposites, to be united, are in the Ego as consciousness. Hence X must also be in consciousness.

2. Both the Ego and Non-Ego are products of original acts of the Ego, and consciousness itself is such a product of the first original act of the Ego, of the positing of the Ego through itself.

3. But our above results show that the act of which the Non-Ego is the product, that is, the oppositing, is not at all possible without X. Hence, X itself must be a product of an original act of the Ego. There must be, accordingly, an act of the human mind = Y, the product of which is X.

4. The form of this act Y is determined by the above problem. It is to be a uniting of the opposites (the Ego and the Non-Ego) without their mutually canceling each other. The opposites are to be taken up into the identity of consciousness.

5. But the problem does not determine the How, or the manner of this uniting, nor even suggest it at all. We must, therefore, make an experiment, and ask: How can A and − A, being and not being, reality and negation, be thought together, without their mutually canceling each other?

6. It is not to be expected that any one will reply otherwise but: They must mutually *limit* each other. If this answer is

correct, the act Y is a *limiting* of both opposites through each other, and X would signify the *limits*.

(Let me not be understood as asserting that the conception of limits is an analytical conception, involved in, and to be developed out of, the union of reality and negation. It is true our two fundamental principles have given us the opposite conceptions, and our first principle has given us the requirement to unite them. But the *manner* of uniting them has not been given, and is determined by a *particular* law of our mind, which law our experiment was only to make us conscious of.)

7. The conception of limits, however, involves more than the required X; for it involves also the conceptions of reality and negation, which are to be united. Hence, to get X pure, we must undertake another abstraction.

8. To *limit* something signifies to cancel the reality thereof not *altogether*, but only *in part*. Hence the conception of limits involves, besides the conception of reality and negation, that of *divisibility*, (of *quantitability generally*, not of a *determined* quantity). This conception is the required X, and hence, through the act Y, *the Ego as well as the Non-Ego is posited divisible.*

9. *The Ego as well as the Non-Ego is posited divisible;* for the act Y cannot *succeed* the act of oppositing, for in itself the act of oppositing has shown itself impossible; nor can it *precede* that act, for the act Y occurs merely to make the act of oppositing possible; and divisibility is nothing but a divisible. Hence, the act Y and the act of oppositing occur in and with each other; both are one and the same, and are only distinguished in reflection. By oppositing, therefore, a Non-Ego to the Ego, both the Ego and the Non-Ego are posited divisible.

Let us now see whether the here established act has really solved the opposites.

The first result is now determined as follows: The Ego is not posited in the Ego in so far, that is, with those parts of reality wherewith the Non-Ego is posited. That part of reality, which is ascribed to the Non-Ego, is canceled in the Ego.

This proposition at present does not contradict the second result: in so far as the Non-Ego is posited, the Ego also must

be posited ; for both are posited as divisible in regard to their reality.

And only now can you say of either, it is *something*. For the absolute Ego of the first fundamental principle is not *something*, (has no predicate and can have none;) it is simply *what* it is. But now *all* reality is in consciousness, and of this reality that part is to be ascribed to the Non-Ego, which is not to be ascribed to the Ego, and *vice versa*. Both are something. The Non-Ego is what the Ego is *not*, and *vice versa*. Opposed to the absolute Ego, the Non-Ego is *absolutely nothing*, (but it can be opposed to the absolute Ego only in so far as it is an object of representation, as we shall see hereafter;) opposed to the divisible Ego, the Non-Ego is a *negative quantity*.

The Ego is to be = Ego, and yet it is also to be opposed to itself. But it is self-equal in regard to consciousness; and in this consciousness the absolute Ego is posited as indivisible, and the Ego, to which the Non-Ego is opposed, as divisible. Hence, in the unity of consciousness, all the opposites are united; for in it even the Ego, in so far as a Non-Ego is opposed to it, is opposed to the absolute Ego; and this is, as it were, the test that the established conception of divisibility was the correct one.

According to our presupposition, which can be proven only through the completion of the science of knowledge, only one absolute unconditioned, one in its content conditioned, and one in its form conditioned principle is possible. Hence, no further principle can be possible. All that is unconditionally and absolutely certain has been exhausted, and I might express the total in this formula:

The Ego opposits in the Ego a divisible Non-Ego to a divisible Ego.

Beyond this cognition no philosophy can go; but every thorough philosophy ought to go to it, and by doing so will become science of knowledge. Whatsoever is hereafter to occur in the system of the human mind must be deducible from what we have here established.

REMARKS

We have united the opposites, Ego and Non-Ego, through the conception of divisibility. By abstracting from the content (the Ego and Non-Ego) and looking at the *mere form of uniting opposites through the conception of divisibility*, we obtain the logical proposition of the *ground;* that is, A is in part −A, and *vice versa.* Every opposite is related to its opposite in one characteristic = X; and all equals are opposed to each other in one characteristic X. Such an X is called, in the first instance, *ground of relation;* in the second instance, *ground of distinction.* This logical proposition our third fundamental principle both *proves* and *determines.*

Proves: for every opposite = −A is opposed to an A, and this A is posited. Through the positing of a − A you both cancel and do not cancel A. Hence, you only cancel A in part; and instead of the X in A, which is not canceled, you have posited in −A not −X, but X itself; and hence A is = −A in X.

Again, every opposite (= A = B) is self-equal by virtue of being posited in the Ego: A = B, B = B.

Now, you posit B = A; hence, B is not posited through A, for then it would be = A and not = B. (You would have only posited one, and not two.)

But if B is not posited through the positing of A, then it is in so far = −A; and through the positing of both as equal, neither A nor B, but an X, is posited, which X is = X and = A and = B.

Thus it appears how the proposition A = B can be valid, which in itself contradicts the proposition A = A. X = X, A = A, B = X; hence, A = B in so far as both is = X; but A = − B in so far as both is = −X.

Opposites are related and equals are opposed to each other in only *one* part. For, if they were opposed in many parts, that is, if the opposites themselves contained opposite characteristics, one or both would belong to that wherein they are equal, and hence they would not be opposites, and *vice versa.* Every grounded judgment has, therefore, only one ground of relation

and one ground of distinction. If it has more, it is not one judgment, but many judgments.

Determines: for only on condition that many things are posited at all as equals or as opposites, are they thus opposed or related in one characteristic. But it is by no means asserted that absolutely every thing which may occur in our consciousness must be equal to another, and opposed to a third.

A judgment, therefore, concerning that to which nothing is related or opposed, does not come at all under the rule of this proposition of the ground, for it is not under the condition of its validity; it is not grounded, since, on the contrary, itself grounds all possible judgments; it has no ground, but furnishes itself the ground of all grounded. The object of all such judgments is the absolute Ego, and all judgments, whereof it is the subject, are valid absolutely, and without further ground.

The act whereby, in comparing a twofold, you look up the mark wherein they are *opposites*, is called the *antithetical* proceeding, generally spoken of as *analytical*, which expression, however, is less proper; partly because it permits the opinion that you can develop something out of a conception which you have not previously put into it by a synthesis, and partly because the expression *antithetical* signifies more clearly that it is the opposite of synthetical. For the *synthetical* proceeding consists in this, that in opposites that characteristic is looked up wherein they are *equal*. In the mere logical form, judgments of the first class are called antithetical or negative, and judgments of the latter class synthetical or affirmative judgments.

Again: since we discovered, in the development of our third principle, that the act of uniting opposites in a third is not possible without the act of oppositing, and *vice versa*, it also follows that in logic antithesis and synthesis are inseparable. No antithesis — no positing of equals as opposites — without synthesis — without the previous positing of the equals as equals. No synthesis — no positing of opposites as equals — without antithesis — without the previous positing of the opposites as opposites. (As far as the content is concerned, mere analytical judgments have, therefore, no existence; and not only do they

not carry us far, as Kant remarks, but they do not advance us a single step.)

Kant's celebrated question, which he placed at the head of his Critic of Pure Reason, How are synthetical judgments *à priori* possible? has now been answered in the most universal and satisfactory manner. In our third principle we have established a synthesis between the opposites, Ego and Non-Ego, by means of the posited divisibility of both, concerning the possibility of which no further question can be asked nor any further ground assigned; it is absolutely possible, and we are justified in establishing it without further ground. All other syntheses, which are to be valid, must be involved in this one; must have been established in and with this one; and as soon as this is proven, the most convincing proof has been shown up that they are equally valid.

Must be involved in this one; and this shows us at the same time in the most determined manner, how we must proceed in the development of our science. It is syntheses we are to obtain, and hence our whole course of proceeding hereafter will be synthetical; every proposition will contain a synthesis. (At least in the theoretical part of our science, for in the practical part the very reverse is the case, as will appear hereafter.) But no synthesis is possible without a previous analysis; from this analysis, however, in so far as it is an *act*, we abstract, and only look up its product — the opposites. Hence, at every proposition hereafter we shall begin by looking up the opposites involved in it, and which are to be united. Again, all our syntheses are to be involved in the highest synthesis, just shown up, and to be developed out of it. Hence it will be our task to look up in the Ego and Non-Ego, which that synthesis unites, some opposite characteristics, which have not been united; and to unite these opposites through a new ground of relation, which, again, must be involved in the highest ground of relation; next, it will be our task to look up new opposites in the opposites united by this second synthesis, and to unite them in a third synthesis; and to continue this course until we arrive at opposites which can no longer be perfectly united, whereby

we shall then be forced to enter the practical part of our science.

As antithesis is not possible without synthesis, and *vice versa*, so neither is possible without a thesis; that is, without an absolute positing, whereby a certain A (the Ego) is posited, not as the equal of any other, nor as the opposite of any other, but is absolutely posited. This, when applied to our system, gives it completeness and surety. It must be a system and one system; the opposites must be united so long as opposites still exist, and until the absolute unity is produced; which absolute unity, as will be shown hereafter, can, however, only be produced by a completed approach to the infinite, that is to say, never in time.

The necessity to opposit and unite in the above determined manner rests immediately on our third fundamental principle; the necessity to unite at all, rests on the first highest and absolutely unconditioned principle. The *form* of the system is grounded in the highest synthesis; but *that* a system is to be at all is grounded in the absolute thesis.

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THE VOCATION OF MAN

Translated from the German by*
WILLIAM SMITH

BOOK III. FAITH

III

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THIS, then, is my whole sublime vocation, my true nature. I am a member of two orders: — the one purely spiritual, in which I rule by my will alone; the other sensuous, in which I operate by my deed. The whole end of reason is pure activity, absolutely by itself alone, having no need of any instrument out of itself, — independence of everything which is not reason, — absolute freedom. The will is the living principle of reason, — is itself reason, when purely and simply apprehended; that reason is active by itself alone, means, that pure will, merely as such, lives and rules. It is only the Infinite Reason that lives immediately and wholly in this purely spiritual order. The finite reason, — which does not of itself constitute the world of reason, but is only one of its many members, — lives necessarily at the same time in a sensuous order; that is to say, in one which presents to it another object, beyond a purely spiritual activity: — a material object, to be promoted by instruments and powers which indeed stand under the immediate dominion of the will, but whose activity is also conditioned by their own natural laws. Yet as surely as reason is reason, must the will operate absolutely by itself, and independently of the natural laws by which the material action is determined; — and hence the sensuous life of every finite being points towards a higher, into which the will, by itself alone, may open the way, and of which it may acquire possession, — a possession which indeed we must again sensuously conceive of as a state, and not as a mere will.

* From *Die Bestimmung des Menschen*, Berlin, 1800. Reprinted from J. G. Fichte's *Vocation of Man*, translated by Wm. Smith, London, 1838.

These two orders, — the purely spiritual and the sensuous, the latter consisting possibly of an innumerable series of particular lives, — have existed since the first moment of the development of an active reason within me, and still proceed parallel to each other. The latter order is only a phenomenon for myself, and for those with whom I am associated in this life; the former alone gives it significance, purpose, and value. I *am* immortal, imperishable, eternal, as soon as I form the resolution to obey the laws of reason; I do not need to *become* so. The super-sensual world is no future world; it is now present; it can at no point of finite existence be more present than at another; not more present after an existence of myriads of lives than at this moment. My sensuous existence may, in future, assume other forms, but these are just as little the true life, as its present form. By that resolution I lay hold on eternity, and cast off this earthly life and all other forms of sensuous life which may yet lie before me in futurity, and place myself far above them. I become the sole source of my own being and its phenomena, and, henceforth, unconditioned by anything without me, I have life in myself. My will, which is directed by no foreign agency in the order of the super-sensual world, but by myself alone, is this source of true life, and of eternity.

It is my will alone which is this source of true life, and of eternity; — only by recognising this will as the peculiar seat of moral goodness, and by actually raising it thereto, do I obtain the assurance and the possession of that super-sensual world.

Without regard to any conceivable or visible object, without inquiry as to whether my will may be followed by any result other than the mere volition, — I must will in accordance with the moral law. My will stands alone, apart from all that is not itself, and is its own world merely by itself and for itself; not only as being itself an absolutely *first*, primary and original power, before which there is no preceding influence by which it may be governed, but also as being followed by no conceivable or comprehensible *second* step in the series, coming after it, by which its activity may be brought under the dominion of a foreign law. Did there proceed from it any second, and from this

again a third result, and so forth, in any conceivable sensuous world opposed to the spiritual world, then would its strength be broken by the resistance it would encounter from the independent elements of such a world which it would set in motion; the mode of its activity would no longer exactly correspond to the purpose expressed in the volition; and the will would no longer remain free, but be partly limited by the peculiar laws of its heterogeneous sphere of action. And thus must I actually regard the will in the present sensuous world, the only one known to me. I am indeed compelled to believe, and consequently to act as if I thought, that by my mere volition, my tongue, my hand, or my foot, might be set in motion; but how a mere aspiration, an impress of intelligence upon itself, such as will is, can be the principle of motion to a heavy material mass, — this I not only find it impossible to conceive, but the mere assertion is, before the tribunal of the understanding, a palpable absurdity; — here the movement of matter even in myself can be explained only by the internal forces of matter itself.

Such a view of my will as I have taken, can, however, be attained only through an intimate conviction that it is not merely the highest active principle for this world, — which it certainly might be, without having freedom in itself, by the mere influence of the system of the universe, perchance, as we must conceive of a formative power in Nature, — but that it absolutely disregards all earthly objects, and generally all objects lying out of itself, and recognises itself, for its own sake, as its own ultimate end. But by such a view of my will I am at once directed to a super-sensual order of things, in which the will, by itself alone and without any instrument lying out of itself, becomes an efficient cause in a sphere which, like itself, is purely spiritual, and is thoroughly accessible to it. That moral volition is demanded of us absolutely for its own sake alone, — a truth which I discover only as a fact in my inward consciousness, and to the knowledge of which I cannot attain in any other way: — this was the first step of my thought. That this demand is reasonable, and the source and standard of all else that is reasonable; that it is not modelled upon any other thing whatever, but that all other

things must, on the contrary, model themselves upon it, — and be dependent upon it, — a conviction which also I cannot arrive at from without, but can attain only by inward experience, by means of the unhesitating and immovable assent which I freely accord to this demand: — this was the second step of my thought. And from these two terms I have attained to faith in a supersensual Eternal World. If I abandon the former, the latter falls to the ground. If it were true, — as many say it is, assuming it without farther proof as self-evident and extolling it as the highest summit of human wisdom, — that all human virtue must have before it a certain definite external object, and that it must first be assured of the possibility of attaining this object, before it can act and before it can become virtue; that, consequently, reason by no means contains within itself the principle and the standard of its own activity, but must receive this standard from without, through contemplation of an external world; — if this were true, then might the ultimate end of our existence be accomplished here below; human nature might be completely developed and exhausted by our earthly vocation, and we should have no rational ground for raising our thoughts above the present life.

But every thinker who has anywhere acquired those first principles even historically, moved perhaps by a mere love of the new and unusual, and who is able to prosecute a correct course of reasoning from them, might speak and teach as I have now spoken to myself. He would then present us with the thoughts of some other being, not with his own; everything would float before him empty and without significance, because he would be without the sense whereby he might apprehend its reality. He is a blind man, who, upon certain true principles concerning colours which he has learned historically, has built a perfectly correct theory of colour, notwithstanding that there is in reality no colour existing for him; — he can tell how, under certain conditions, it *must be;* but to him it *is* not so, because he does not stand under these conditions. The faculty by which we lay hold on Eternal Life is to be attained only by actually

renouncing the sensuous and its objects, and sacrificing them to that law which takes cognizance of our will only and not of our actions; — renouncing them with the firmest conviction that it is reasonable for us to do so, — nay, that it is the only thing reasonable for us. By this renunciation of the Earthly does faith in the Eternal first arise in our soul, and is there enshrined apart, as the only support to which we can cling after we have given up all else, — as the only animating principle that can elevate our minds and inspire our lives. We must indeed, according to the figure of a sacred doctrine, first "die unto the world and be born again, before we can enter the kingdom of God."

I see — Oh I now see clearly before me the cause of my former indifference and blindness concerning spiritual things! Absorbed by mere earthly objects, lost in them with all our thoughts and efforts, moved and urged onward only by the notion of a result lying beyond ourselves, — by the desire of such a result and of our enjoyment therein, — insensible and dead to the pure impulse of reason, which gives a law to itself, and offers to our aspirations a purely spiritual end, — the immortal Psyche remains, with fettered pinions, fastened to the earth. Our philosophy becomes the history of our own heart and life; and according to what we ourselves are, do we conceive of man and his vocation. Never impelled by any other motive than the desire after what can be actually realised in this world, there is for us no true freedom, — no freedom which holds the ground of its determination absolutely and entirely within itself. Our freedom is, at best, that of the self-forming plant; not essentially higher in its nature, but only more artistical in its results; not producing a mere material form with roots, leaves, and blossoms, but a mind with impulses, thoughts, and actions. We cannot have the slightest conception of true freedom, because we do not ourselves possess it; when it is spoken of, we either bring down what is said to the level of our own notions, or at once declare all such talk to be nonsense. Without the idea of freedom, we are likewise without the faculty for another world. Everything of this kind floats past before us like words that are not addressed

to us; like a pale shadow, without colour or meaning, which we know not how to lay hold of or retain. We leave it as we find it, without the least participation or sympathy. Or should we ever be urged by a more active zeal to consider it seriously, we then convince ourselves to our own satisfaction that all such ideas are untenable and worthless reveries, which the man of sound understanding unhesitatingly rejects; and according to the premises from which we proceed, made up as they are of our inward experiences, we are perfectly in the right, and secure from either refutation or conversion so long as we remain what we are. The excellent doctrines which are taught amongst us with a special authority, concerning freedom, duty, and everlasting life, become to us romantic fables, like those of Tartarus and the Elysian fields; although we do not publish to the world this our secret opinion, because we find it expedient, by means of these figures, to maintain an outward decorum among the populace; or, should we be less reflective, and ourselves bound in the chains of authority, then we sink to the level of the common mind, and believing what, *thus understood*, would be mere foolish fables, we find in those pure spiritual symbols only the promise of continuing throughout eternity the same miserable existence which we possess here below.

In one word: — only by the fundamental improvement of my will does a new light arise within me concerning my existence and vocation; without this, however much I may speculate, and with what rare intellectual gifts soever I may be endowed, darkness remains within me and around me. The improvement of the heart alone leads to true wisdom. Let then my whole life be unceasingly devoted to this one purpose.

IV

My Moral Will merely as such, in and through itself, shall certainly and invariably produce consequences; every determination of my will in accordance with duty, although no action should follow it, shall operate in another, to me incomprehensible, world, in which nothing but this moral determination of the will shall possess efficient activity. What is it that is assumed in this conception?

Obviously a *Law;* a rule absolutely without exception, according to which a will determined by duty must have consequences; just as in the material world which surrounds me I assume a law according to which this ball, when thrown by my hand with this particular force, in this particular direction, necessarily moves in such a direction with a certain degree of velocity, — perhaps strikes another ball with a certain amount of force, which in its turn moves on with a certain velocity, — and so on. As here, in the mere direction and motion of my hand, I already perceive and apprehend all the consequent directions and movements, with the same certainty as if they were already present before me; even so do I embrace by means of my virtuous will a series of necessary and inevitable consequences in the spiritual world, as if they were already present before me; only that I cannot define them as I do those in the material world, — that is, I only know *that* they must be, but not *how* they shall be; — and even in doing this I conceive of a *Law* of the spiritual world, in which my pure will is one of the moving forces, as my hand is one of the moving forces of the material world. My own firm confidence in these results, and the conceptions of this *Law* of the spiritual world, are one and the same; — they are not two thoughts, one of which arises by means of the other, but they are entirely the same thought; just as the confidence with which I calculate on a certain motion in a material body, and the conception of a mechanical law of nature on which that motion depends, are one and the same. The conception of a *Law* expresses nothing more than the firm, immovable confidence of reason in a principle, and the absolute impossibility of admitting its opposite.

I assume such a law of a spiritual world, — not given by my will nor by the will of any finite being, nor by the will of all finite beings taken together, but to which my will, and the will of all finite beings, is subject. Neither I, nor any finite and therefore sensuous being, can conceive how a mere will can have consequences, nor what may be the true nature of those consequences; for herein consists the essential character of our finite nature, — that we are unable to conceive this, — that having indeed our will, as such, wholly within our power, we are yet compelled by

our sensuous nature to regard the consequences of that will as sensuous states: — how then can I, or any other finite being whatever, propose to ourselves as objects, and thereby give reality to, that which we can neither imagine nor conceive? I cannot say that, in the material world, my hand, or any other body which belongs to that world and is subject to the universal law of gravity, brings this law into operation; — these bodies themselves stand under this law, and are able to set another body in motion only in accordance with this law, and only in so far as that body, by virtue of this law, partakes of the universal moving power of Nature. Just as little can a finite will give a law to the super-sensual world, which no finite spirit can embrace; but all finite wills stand under the law of that world, and can produce results therein only inasmuch as that law already exists, and inasmuch as they themselves, in accordance with the form of that law which is applicable to finite wills, bring themselves under its conditions, and within the sphere of its activity by moral obedience; — by moral obedience, I say, the only tie which unites them to that higher world, the only nerve that descends from it to them, and the only organ through which they can re-act upon it. As the universal power of attraction embraces all bodies, and holds them together in themselves and with each other, and the movement of each separate body is possible only on the supposition of this power, so does that super-sensual law unite, hold together, and embrace all finite reasonable beings. My will, and the will of all finite beings, may be regarded from a double point of view: — partly as a mere *volition*, an internal act directed upon itself alone, and, in so far, the will is complete in itself, concluded in this act of volition; — partly as something beyond this, a *fact*. It assumes the latter form to me, as soon as I regard it as completed; but it must also become so beyond me: — in the world of sense, as the moving principle, for instance, of my hand, from the movement of which, again, other movements follow; — in the super-sensual world, as the principle of a series of spiritual consequences of which I have no conception. In the former point of view, as a mere act of volition, it stands wholly within my own power; its assump-

tion of the latter character, that of an active first principle, depends not upon me, but on a law to which I myself am subject; — on the law of nature in the world of sense, on a super-sensual law in the world of pure thought.

What, then, is this law of the spiritual world which I conceive? This idea now stands before me, in fixed and perfect shape; I cannot and dare not add anything whatever to it; I have only to express and interpret it distinctly. It is obviously not such as I may suppose the principle of my own, or any other possible sensuous world, to be, — a fixed, inert existence, from which, by the encounter of a will, some internal power may be evolved, — something altogether different from a mere will. For, — and this is the substance of my belief, — my will, absolutely by itself, and without the intervention of any instrument that might weaken its expression, shall act in a perfectly congenial sphere, — reason upon reason, spirit upon spirit; — in a sphere to which nevertheless it does not give the law of life, activity, and progress, but which has that law in itself; — therefore, upon self-active reason. But self-active reason is will. The law of the super-sensual world must, therefore, be a Will, — a Will which operates purely as will; by itself, and absolutely without any instrument or sensible material of its activity; which is, at the same time, both act and product; with whom to will is to do, to command is to execute; in which therefore the instinctive demand of reason for absolute freedom and independence is realised, — a Will which in itself is law; determined by no fancy or caprice, through no previous reflection, hesitation or doubt: — but eternal, unchangeable, on which we may securely and infallibly rely, as the physical man relies with certainty on the laws of his world: — A Will in which the moral will of finite beings, and this alone, has sure and unfailing results; since for it all else is unavailing, all else is as if it were not.

That sublime Will thus pursues no solitary path withdrawn from the other parts of the world of reason. There is a spiritual bond between Him and all finite rational beings; and He himself is this spiritual bond of the rational universe. Let me will, purely and decidedly, my duty; and He wills that, in the spiritual

world at least, my will shall prosper. Every moral resolution of a finite being goes up before Him, and — to speak after the manner of mortals — moves and determines Him, not in consequence of a momentary satisfaction, but in accordance with the eternal law of His being. With surprising clearness does this thought, which hitherto was surrounded with darkness, now reveal itself to my soul; the thought that my will, merely as such, and through itself, shall have results. It has results, because it is immediately and infallibly perceived by another Will to which it is related, which is its own accomplishment and the only living principle of the spiritual world; *in Him* it has its first results, and *through Him* it acquires an influence on the whole spiritual world, which throughout is but a product of that Infinite Will.

Thus do I approach — the mortal must speak in his own language — thus do I approach that Infinite Will; and the voice of conscience in my soul, which teaches me in every situation of life what I have there to do, is the channel through which again His influence descends upon me. That voice, sensualized by my environment, and translated into my language, is the oracle of the Eternal World which announces to me how I am to perform my part in the order of the spiritual universe, or in the Infinite Will who is Himself that order. I cannot, indeed, survey or comprehend that spiritual order, and I need not to do so; — I am but a link in its chain, and can no more judge of the whole, than a single tone of music can judge of the entire harmony of which it forms a part. But what I myself ought to be in this harmony of spirits I must know, for it is only I myself who can make me so, — and this is immediately revealed to me by a voice whose tones descend upon me from that other world. Thus do I stand connected with the ONE who alone has existence, and thus do I participate in His being. There is nothing real, lasting, imperishable in me, but these two elements: — the voice of conscience, and my free obedience. By the first, the spiritual world bows down to me, and embraces me as one of its members; by the second I raise myself into this world, apprehend it, and re-act upon it. That Infinite Will is the mediator between it and me; for He himself is the original source both of it and me. This

is the one True and Imperishable for which my soul yearns even from its inmost depths; all else is mere appearance, ever vanishing, and ever returning in a new semblance.

This Will unites me with himself; He also unites me with all finite beings like myself, and is the common mediator between us all. This is the great mystery of the invisible world, and its fundamental law, in so far as it is a world or system of many individual wills: — *the union, and direct reciprocal action, of many separate and independent wills;* a mystery which already lies clearly before every eye in the present life, without attracting the notice of any one, or being regarded as in any way wonderful. The voice of conscience, which imposes on each his particular duty, is the light-beam on which we come forth from the bosom of the Infinite, and assume our place as particular individual beings; it fixes the limits of our personality; it is thus the true original element of our nature, the foundation and material of all our life. The absolute freedom of the will, which we bring down with us from the Infinite into the world of Time, is the principle of this our life. I act: — and, the sensible intuition through which alone I become a personal intelligence being supposed, it is easy to conceive how I must necessarily know of this my action, — I know it, because it is I myself who act; — it is easy to conceive how, by means of this sensible intuition, my spiritual act appears to me as a fact in a world of sense; and how, on the other hand, by the same sensualization, the law of duty which, in itself, is a purely spiritual law, should appear to me as the command to such an action; — it is easy to conceive, how an actually present world should appear to me as the condition of this action, and, in part, as the consequence and product of it. Thus far I remain within myself and upon my own territory; everything here, which has an existence for me, unfolds itself purely and solely from myself; I see everywhere only myself, and no true existence out of myself. But in this my world I admit, also, the operations of other beings, separate and independent of me, as much as I of them. How these beings can themselves know of the influences which proceed from them,

may easily be conceived; they know of them in the same way in which I know of my own. But how *I* can know of *them* is absolutely inconceivable; just as it is inconceivable how *they* can possess that knowledge of *my* existence, and its manifestations, which nevertheless I ascribe to them. How do they come within my world, or I within theirs, — since the principle by which the consciousness of ourselves, of our operations, and of their sensuous conditions, is deduced from ourselves, — *i. e.*, that each individual must undoubtedly know what he himself does, — is here wholly inapplicable? How have free spirits knowledge of free spirits, since we know that free spirits are the only reality, and that an independent world of sense, through which they might act on each other, is no longer to be taken into account. Or shall it be said, — I perceive reasonable beings like myself by the changes which they produce in the world of sense? Then I ask again, — How dost thou perceive these changes? I comprehend very well how thou canst perceive changes which are brought about by the mere mechanism of nature; for the law of this mechanism is no other than the law of thy own thought, according to which, this world being once assumed, it is carried out into farther developments. But the changes of which we now speak are not brought about by the mere mechanism of nature, but by a free will elevated above all nature; and only in so far as thou canst regard them in this character, canst thou infer from them the existence of free beings like thyself. Where then is the law within thyself, according to which thou canst realize the determinations of other wills absolutely independent of thee? In short, this mutual recognition and reciprocal action of free beings in this world, is perfectly inexplicable by the laws of nature or of thought, and can be explained only through the One in whom they are united, although to each other they are separate; through the Infinite Will who sustains and embraces them all in His own sphere. Not immediately from thee to me, nor from me to thee, flows forth the knowledge which we have of each other; — we are separated by an insurmountable barrier. Only through the common fountain of our spiritual being do we know of each other;

only in Him do we recognise each other, and influence each other. "Here reverence the image of freedom upon the earth; — here, a work which bears its impress:" — thus is it proclaimed within me by the voice of that Will, which speaks to me only in so far as it imposes duties upon me; — and the only principle through which I recognise thee and thy work, is the command of conscience to respect them.

Whence, then, our feelings, our sensible intuitions, our discursive laws of thought, on all which is founded the external world which we behold, in which we believe that we exert an influence on each other? With respect to the two last — our sensible intuitions and our laws of thought — to say, these are laws of reason in itself, is only to give no satisfactory answer at all. For us, indeed, who are excluded from the pure domain of reason in itself, it may be impossible to think otherwise, or to conceive of reason under any other law. But the true law of reason in itself is the practical law, the law of the super-sensual world, or of that sublime Will. And, leaving this for a moment undecided, whence comes our universal agreement as to feelings, which, nevertheless, are something positive, immediate, inexplicable? On this agreement in feeling, perception, and in the laws of thought, however, it depends that we all behold the same external world.

"It is a harmonious, although inconceivable, limitation of the infinite rational beings who compose our race; and only by means of such a harmonious limitation do they become a race:" — thus answers the philosophy of mere knowledge, and here it must rest as its highest point. But what can set a limit to reason but reason itself? — what can limit all finite reason but the Infinite Reason? This universal agreement concerning a sensible world, — assumed and accepted by us as the foundation of all our other life, and as the sphere of our duty — which, strictly considered, is just as incomprehensible as our unanimity concerning the products of our reciprocal freedom, — this agreement is the result of the One Eternal Infinite Will. Our faith, of which we have spoken as faith in duty, is only faith in Him, in His reason, in His truth. What, then, is the peculiar and

essential truth which we accept in the world of sense, and in which we believe? Nothing less than that from our free and faithful performance of our duty in this world, there will arise to us throughout eternity a life in which our freedom and morality may still continue their development. If this be true, then indeed is there truth in our world, and the only truth possible for finite beings; and it must be true, for this world is the result of the Eternal Will in us, — and that Will, by the law of His own being, can have no other purpose with respect to finite beings, than that which we have set forth.

That Eternal Will is thus assuredly the Creator of the World, in the only way in which He can be so, and in the only way in which it needs creation: — in the finite reason. Those who regard Him as building up a world from an everlasting inert matter, which must still remain inert and lifeless, — like a vessel made by human hands, not an eternal procession of His self-development, — or who ascribe to Him the production of a material universe out of nothing, know neither the world nor Him. If matter only can be reality, then were the world indeed nothing, and throughout all eternity would remain nothing. Reason alone exists: — the Infinite in Himself — the finite in Him and through Him. Only in our minds has He created a world; at least that *from which* we unfold it, and that *by which* we unfold it; — the voice of duty, and harmonious feelings, intuitions, and laws of thought. It is His light through which we behold the light, and all that it reveals to us. In our minds He still creates this world, and acts upon it by acting upon our minds through the call of duty, as soon as another free being changes aught therein. In our minds He upholds this world, and thereby the finite existence of which alone we are capable, by continually evolving from each state of our existence other states in succession. When He shall have sufficiently proved us according to His supreme designs, for our next succeeding vocation, and we shall have sufficiently cultivated ourselves for entering upon it, then, by that which we call death, will He annihilate for us this life, and introduce us to a new life, the product of our virtuous actions. All our life is His life. We are in His hand, and abide

therein, and no one can pluck us out of His hand. We are eternal, because He is eternal.

Sublime and Living Will! named by no name, compassed by no thought! I may well raise my soul to Thee, for Thou and I are not divided. Thy voice sounds within me, mine resounds in Thee; and all my thoughts, if they be but good and true, live in Thee also. In Thee, the Incomprehensible, I myself, and the world in which I live, become clearly comprehensible to me; all the secrets of my existence are laid open, and perfect harmony arises in my soul.

Thou art best known to the child-like, devoted, simple mind. To it Thou art the searcher of hearts, who seest its inmost depths; the ever-present true witness of its thoughts, who knowest its truth, who knowest it though all the world know it not. Thou art the Father who ever desirest its good, who rulest all things for the best. To Thy will it unhesitatingly resigns itself: "Do with me," it says, "what thou wilt; I know that it is good, for it is Thou who doest it." The inquisitive understanding, which has heard of Thee, but seen Thee not, would teach us thy nature; and as Thy image, shows us a monstrous and incongruous shape, which the sagacious laugh at, and the wise and good abhor.

I hide my face before Thee, and lay my hand upon my mouth. *How* Thou art, and seemest to Thine own being, I can never know, any more than I can assume Thy nature. After thousands upon thousands of spirit-lives, I shall comprehend Thee as little as I do now in this earthly house. That which I conceive, becomes finite through my very conception of it; and this can never, even by endless exaltation, rise into the Infinite. Thou differest from men, not in degree but in nature. In every stage of their advancement they think of Thee as a greater *man*, and still a greater; but never as God — the Infinite, — whom no measure can mete. I have only this discursive, progressive thought, and I can conceive of no other: — how can I venture to ascribe it to Thee? In the Idea of *person* there are imperfections, limitations: — how can I clothe Thee with it without these?

I will not attempt that which the imperfection of my finite

nature forbids, and which would be useless to me: — *How* Thou art, I may not know. But, let me be what I ought to be, and Thy relations to me — the mortal — and to all mortals, lie open before my eyes, and surround me more clearly than the consciousness of my own existence. *Thou workest* in me the knowledge of my duty, of my vocation in the world of reasonable beings; — *how*, I know not, nor need I to know. *Thou knowest* what I think and what I will: — *how* Thou canst know, through what act thou bringest about that consciousness, I cannot understand, — nay, I know that the idea of an act, of a particular act of consciousness, belongs to me alone, and not to Thee, — the Infinite One. *Thou willest* that my free obedience shall bring with it eternal consequences: — the act of Thy will I cannot comprehend, I only know that it is not like mine. *Thou doest*, and Thy will itself is the deed; but the way of Thy working is not as my ways, — I cannot trace it. *Thou livest and art*, for Thou knowest and willest and workest, omnipresent to finite Reason; but Thou *art not* as *I* now and always must conceive of being.

In the contemplations of these Thy relations to me, the finite being, will I rest in calm blessedness. I know immediately only what I ought to do. This will I do, freely, joyfully, and without cavilling or sophistry, for it is Thy voice which commands me to do it; it is the part assigned to me in the spiritual World-plan; and the power with which I shall perform it is Thy power. Whatever may be commanded by that voice, whatever executed by that power, is, in that plan, assuredly and truly good. I remain tranquil amid all the events of this world, for they are in Thy world. Nothing can perplex or surprise or dishearten me, as surely as Thou livest, and I can look upon Thy life. For in Thee, and through Thee, O Infinite One! do I behold even my present world in another light. Nature, and natural consequences, in the destinies and conduct of free beings, as opposed to Thee, become empty, unmeaning words. Nature is no longer; Thou, only Thou, art. It no longer appears to me to be the end and purpose of the present world to produce that state of uni-

versal peace among men, and of unlimited dominion over the mechanism of nature, for its own sake alone, — but that this should be produced by man himself, — and, since it is expected from *all*, that it should be produced by *all*, as one great, free, moral, community. Nothing new and better for an individual shall be attainable, except through his own virtuous will; nothing new and better for a community, except through the common will being in accordance with duty: — this is a fundamental law of the great moral empire, of which the present life is a part. The good will of the individual is thus often lost to this world, because it is but the will of the individual, and the will of the majority is not in harmony with his, — and then its results are to be found solely in a future world; while even the passions and vices of men coöperate in the attainment of good, — not in and for themselves, for in this sense good can never come out of evil, but by holding the balance against the opposite vices, and, at last, by their excess, annihilating these antagonists, and themselves with them. Oppression could never have gained the upper hand in human affairs, unless the cowardice, baseness, and mutual mistrust of men had smoothed the way to it. It will continue to increase, until it extirpate cowardice and slavishness; and despair itself at last reawaken courage. Then shall the two opposite vices have annihilated each other, and the noblest of all human relations, lasting freedom, come forth from their antagonism.

The actions of free beings, strictly considered, have results only in other free beings; for in them, and for them alone, there is a world; and that in which they all agree, is itself the world. But they have these results only through the Infinite Will, — the medium through which all individual beings influence each other. But the announcement, the publication of this Will to us, is always a call to a particular duty. Thus even what we call evil in the world, the consequence of the abuse of freedom, exists only through Him; and it exists for those who experience it only in so far as, through it, duties are laid upon them. Were it not in the eternal plan of our moral culture, and the culture of our whole race, that precisely these duties should be laid upon us,

they would not be so laid upon us; and that through which they are laid upon us — *i. e.* what we call evil — would not have been produced. In so far, everything that is, is good, and absolutely legitimate. There is but one world possible, — a thoroughly good world. All that happens in this world is subservient to the improvement and culture of man, and, by means of this, to the promotion of the purpose of his earthly existence. It is this higher World-plan which we call Nature, when we say, — Nature leads men through want to industry; through the evils of general disorder to a just constitution; through the miseries of continual wars to endless peace on earth. Thy will, O Infinite One! thy Providence alone, is this higher Nature. This, too, is best understood by artless simplicity, when it regards this life as a place of trial and culture, as a school for eternity; when, in all the events of life, the most trivial as well as the most important, it beholds thy guiding Providence disposing all for the best; when it firmly believes that all things must work together for the good of those who love their duty, and who know Thee.

. . . .

All Death in Nature is Birth, and in Death itself appears visibly the exaltation of Life. There is no destructive principle in Nature, for Nature throughout is pure, unclouded Life; it is not Death which kills, but the more living Life, which, concealed behind the former, bursts forth into new development. Death and Birth are but the struggle of Life with itself to assume a more glorious and congenial form. And *my* death, — how can it be aught else, since I am not a mere show and semblance of life, but bear within me the one original, true, and essential Life? It is impossible to conceive that Nature should annihilate a life which does not proceed from her; — the Nature which exists for me, and not I for her.

Yet even my natural life, even this mere outward manifestation to mortal sight of the inward invisible Life, she cannot destroy without destroying herself; — she who only exists for me, and on account of me, and exists not if I am not. Even because she destroys me must she animate me anew; it is only my Higher Life, unfolding itself in her, before which my present

life can disappear; and what mortals call Death is the visible appearance of this second Life. Did no reasonable being who had once beheld the light of this world die, there would be no ground to look with faith for a new heavens and a new earth; the only possible purpose of Nature, to manifest and maintain Reason, would be fulfilled here below, and her circle would be completed. But the very act by which she consigns a free and independent being to death, is her own solemn entrance, intelligible to all Reason, into a region beyond this act itself, and beyond the whole sphere of existence which is thereby closed. Death is the ladder by which my spiritual vision rises to a new Life and a new Nature.

Every one of my fellow-creatures who leaves this earthly brotherhood and whom my spirit cannot regard as annihilated because he is my brother, draws my thoughts after him beyond the grave; — he is still, and to him belongs a place. While we mourn for him here below, as in the dim realms of unconsciousness there might be mourning when a man bursts from them into the light of this world's sun, — above there is rejoicing that a man is born into that world, as we citizens of the earth receive with joy those who are born unto us. When I shall one day follow, it will be but joy for me; sorrow shall remain behind in the sphere I shall have left.

The world on which but now I gazed with wonder passes away from before me and sinks from my sight. With all the fulness of life, order, and increase which I beheld in it, it is yet but the curtain by which a world infinitely more perfect is concealed from me, and the germ from which that other shall develop itself. My FAITH looks behind this veil, and cherishes and animates this germ. It sees nothing definite, but it expects more than it can conceive here below, more than it will ever be able to conceive in all time.

Thus do I live, thus am I, and thus am I unchangeable, firm, and completed for all Eternity; — for this is no existence assumed from without, — it is my own, true, essential Life and Being.

FRIEDRICH WILHELM VON SCHELLING
(1775–1854)

SYSTEM OF TRANSCENDENTAL IDEALISM

Translated from the German by*
BENJAMIN RAND

INTRODUCTION TO IDEALISM

Section I. Idea of Transcendental Philosophy

1. All knowledge is based upon the agreement of an objective with a subjective. For we *know* only the true, and the truth is universally held to be the agreement of representations with their objects.

2. The sum of all that is purely objective in our knowledge we may call Nature; whereas the sum of everything subjective may be termed the *Ego,* or Intelligence. These two concepts are mutually opposed. Intelligence is originally conceived as that which solely represents, and nature as that which is merely capable of representation; the former as the conscious — the latter as the unconscious. But in all knowledge there is necessary a mutual agreement of the two — the conscious and the unconscious *per se.* The problem is to explain this agreement.

3. In knowledge itself, in that I know, the objective and subjective are so united that one cannot say which of the two has priority. There is here no first and no second — the two are contemporaneous and one. In any attempt to explain this identity, I must already have resolved it. In order to explain it, inasmuch as there is nothing else given me as a principle of explanation except these two factors of knowledge, I must of necessity place the one before the other, that is to say, must set out from the one in order to arrive at the other. From which of the two I shall set out is not determined by the problem.

* From the *System des transcendentalen Idealismus*, Tübingen, 180

4. There are, consequently, only two cases possible:

A. *Either the objective is made first, and the question arises how a subjective agreeing with it is superinduced.*

The idea of the subjective is not contained in the idea of the objective; on the contrary they mutually exclude each other. The subjective must therefore be *superinduced* upon the objective. It forms no part of the conception of Nature that there must be likewise an intelligence to represent it. Nature, to all appearance, would exist even if there were nothing to represent it. The problem may therefore likewise be expressed thus: How is the Intelligent superinduced upon Nature? or, How does Nature come to be represented?

The problem assumes Nature, or the objective, as the first. It is, therefore, undoubtedly the task of natural science, which does the same. That natural science actually, and without knowing it, approximates, at least, to the solution of this problem can here be only briefly shown.

If all knowledge has, as it were, two poles, which mutually presuppose and demand each other, then they must seek each other in all sciences. There must, therefore, of necessity, exist two fundamental sciences; and it must be impossible to set out from one pole without being driven to the other. The necessary tendency of all natural science, therefore, is to proceed from Nature to the intelligent. This, and this alone, lies at the foundation of the effort to bring theory into natural phenomena. The final perfection of natural science would be the complete intellectualization of all the laws of Nature into laws of intuition and of thought. The phenomena, that is, the material, must completely vanish, and leave only the laws, — that is, the formal. Hence it happens that the more the conformity to law is manifested in Nature, so much the more the wrapping disappears — the phenomena themselves become more intellectualized, and at length entirely cease. Optical phenomena are nothing more than a geometry whose lines are drawn by aid of the light; and even this light itself is already of doubtful materiality. In the phenomena of magnetism every trace of matter has already vanished; and of the phenomena of gravitation, which even the

natural philosopher believed could be attributed only to direct spiritual influence, there remains nothing but their law, whose performance on a large scale is the mechanism of the heavenly motions. The complete theory of Nature would be that by virtue of which the whole of Nature should be resolved into an intelligence. The dead and unconscious products of Nature are only unsuccessful attempts of Nature to reflect itself, but the so-called dead Nature is merely an unripe Intelligence; hence in its phenomena the intelligent character appears, though still unconscious. Its highest aim, that is of becoming wholly self-objective, Nature does not attain, except in its highest and last reflection, which is none other than man, or more generally what we call reason. By its means Nature first turns completely back upon itself, and thereby it is manifest that Nature is originally identical with what in us is known as intelligent and conscious.

This may suffice to prove that natural science has a necessary tendency to render Nature intelligent. By this very tendency it becomes natural philosophy, which is one of the two necessary fundamental sciences of philosophy.

B. *Or the subjective is made first, and the problem is, how an objective is superinduced agreeing with it.*

If all knowledge is based upon the agreement of these two, then the problem to explain this agreement is undoubtedly the highest for all knowledge; and if, as is generally admitted, philosophy is the highest and loftiest of all sciences, it becomes certainly the chief task of philosophy.

But the problem demands only the explanation of that agreement generally, and leaves it entirely undetermined where the explanation shall begin, what it shall make its first, and what its second. Since also the two opposites are mutually necessary, the result of the operation is the same, from whichever point one sets out. To make the objective the first, and to derive the subjective from it, is, as has just been shown, the task of natural philosophy.

If, therefore, there is a transcendental philosophy, the only direction remaining for it is the opposite, that is: to proceed from

the subjective as the first and the absolute, and to deduce the origin of the objective from it. Natural and transcendental philosophy have divided between themselves these two possible directions of philosophy. And if all philosophy must have for an aim to make either an Intelligence out of Nature or a Nature out of Intelligence, then transcendental philosophy, to which this latter problem belongs, is the other necessary fundamental science of philosophy.

Section II. Corollaries

In the foregoing we have not only deduced the concept of transcendental philosophy, but have at the same time afforded the reader a glance into the whole system of philosophy. It is composed, as has been shown, of two fundamental sciences, which though opposed to one another in principle and direction, reciprocally demand and supplement each other. Not the entire system of philosophy, but only the one fundamental science of it, is here to be set up, and, in the first place, to be more strictly characterized in accordance with the idea of it already deduced.

1. If, for transcendental philosophy, the subjective is the first and only ground of all reality, and the sole principle of explanation of everything else (§ 1), then it necessarily begins with universal doubt regarding the reality of the objective.

As the natural philosopher, wholly intent upon the objective, seeks nothing so much as to exclude every admixture of the subjective in his knowledge, so, on the other hand, the transcendental philosopher seeks nothing so much as the entire exclusion of the objective from the purely subjective principle of knowledge. The means of separation is absolute scepticism — not that partial scepticism which is directed merely against the common prejudices of men and never sees the foundation — but the radical scepticism which aims not at the individual prejudices, but against the fundamental prejudice, with which all others must stand or fall. For beyond the artificial and inculcated prejudices of man, there exist others of deeper origin which have been placed in him not by art or education,

but by nature itself. These are regarded by all except the philosopher, as the principles of knowledge, and by the mere thinker of self, as the test of all truth.

The one fundamental prejudice, to which all others may be reduced, is this: that there exist things outside of us. This is an opinion, which, although it rests neither on proofs nor on conclusions (for there is not a single valid proof of it), yet as it cannot be uprooted by any opposite proof (*naturam furcâ expellas, tamen usque redibit*), lays claim to immediate certainty. But since it refers to something wholly distinct from us, and, in fact, opposed to us, of which there is no evidence how it came into immediate consciousness, it must be regarded as nothing more than a prejudice — a natural and original one, to be sure, but nevertheless a prejudice.

The contradiction that a conclusion which in its nature cannot be immediately certain, is, nevertheless, blindly and without grounds, accepted as such, cannot be solved by transcendental philosophy, except on the assumption that this conclusion is implicitly, and without our being aware of it, not founded upon, but identical, and one and the same with an affirmation which is immediately certain. To demonstrate this identity will in reality be the task of transcendental philosophy.

2. Now, even for the ordinary use of reason, there exists nothing immediately certain except the affirmation *I am*, which, since it loses all significance outside of immediate consciousness, is the most individual of all truths, and the absolute prejudice, which must be assumed, if anything else is to be made certain. The affirmation *There are things outside of us*, will therefore be certain for the transcendental philosopher, solely because of its identity with the affirmation *I am;* and its certainty will also only be equal to the certainty of the affirmation from which it derives its own.

According to this view transcendental knowledge would be distinguished from common knowledge in two particulars.

First. — That for it the certainty of the existence of external things is a mere prejudice, which it transcends, in order to investigate the grounds of it. (It can never be the task for transcen-

dental philosophy to prove the existence of things in themselves, but only to show that it is a natural and necessary prejudice to assume external objects as real.)

Second.—That it separates the two affirmations, *I am* and *There are things outside of me*, which run together in the ordinary consciousness, and places the one before the other, in order to prove their identity and that immediate connection which in the other is only felt. By this act of separation, when it is completed, one transports one's self in the transcendental act of contemplation, which is by no means a natural, but an artificial one.

3. If the subjective alone has reality for the transcendental philosopher he will also make only the subjective directly his object. The objective will be for him only indirectly an object, and, whereas, in ordinary knowledge, knowledge itself—the act of knowing — disappears in the object, in transcendental knowledge, on the contrary, the object as such disappears in the act of knowing. Transcendental knowledge is therefore a knowledge of knowing, in so far as it is purely subjective.

Thus, for example, in intuition it is the objective only that reaches the ordinary consciousness; the act of intuition is itself lost in the object; whereas on the contrary the transcendental mode of observation gets only a glimpse of the object of intuition by the act of intuition. Thus the ordinary thinking is a mechanism, in which ideas prevail, without, however, being distinguished as ideas; whereas the transcendental act of thought interrupts this mechanism, and in becoming conscious of the idea as an act, rises to the idea of the idea. In ordinary action, the acting is itself forgotten in the object of the action; philosophizing is also an action, but not an action only. It is likewise a continued self-intuition in this action.

The nature of the transcendental mode of thought must consist, therefore, in general in this: that, in it, that which in all other thinking, knowing, or acting escapes the consciousness, and is absolutely non-objective, is brought into consciousness, and becomes objective. In brief, it consists in a continuous act of becoming an object to itself on the part of the subjective.

The transcendental art will therefore consist in the ability to maintain one's self constantly in this duplicity of acting and thinking.

SECTION III. PRELIMINARY DIVISION OF TRANSCENDENTAL PHILOSOPHY

This division is preliminary, because the principles of the division can be derived only from the science itself.

We return to the idea of science.

Transcendental philosophy has to explain how knowledge is possible at all, assuming that the subjective in it is accepted as the ruling or first element.

It is therefore, not a single part, nor a special object of knowledge, but knowledge itself, and knowledge in general, that it takes for its object.

Now all knowledge can be reduced to certain original convictions or original prejudices. These different convictions transcendental philosophy must trace to one original conviction. This ultimate conviction from which all others are derived, is expressed in the first principle of this philosophy, and the task of finding such is none other than to find the absolutely certain by which all other certainty is attained.

The division of transcendental philosophy is determined through those original convictions, whose validity it affirms. These convictions must, in the first place, be sought in the common understanding. If, therefore, we go back to the standpoint of the ordinary view, we find the following convictions deeply engraven in the human understanding: —

A. That not only does there exist a world of things independent of us, but also that our representations agree with them in such a manner that there is nothing else in the things beyond what we represent by them. The necessity in our objective representations is explained by the belief that the things are unalterably determined, and that by this determination of things our representations appear to be mediately determined. By this first and most original conviction, the first problem of philosophy is determined, *viz.:* to explain how representations can

absolutely agree with objects which exist entirely independent of them. Since it is upon the assumption that things are exactly as we represent them, and that we therefore certainly know things as they are in themselves, that the possibility of all experience rests (for what would experience be, and where would physics, for example, stray to, without that presupposition of the absolute identity of being and seeming?), the solution of this problem is identical with theoretical philosophy, which has to investigate the possibility of experience.

B. The second equally original conviction is, that representations which originate in us freely and without necessity can pass over from the world of thought into the real world, and attain objective reality.

This conviction is opposed to the first. According to the first, it is assumed that objects are unalterably determined, and our representations by them; according to the other, that objects are changeable, and that, too, by the causality of representations in us. According to the first conviction, a transition takes place within us from the real world into the world of representations, or a determining of the representations by the objective; according to the second, a transition takes place from the world of representations into the world of reality, or a determining of the objective by a (freely conceived) representation in us.

By this second conviction, a second problem is determined, *viz* how, by something merely thought, an objective is changeable, so as entirely to correspond with that something thought.

Since the possibility of all free action rests upon that assumption, the solution of this problem is practical philosophy.

C. But with these two problems we find ourselves involved in a contradiction. According to B, the supremacy of thought (the ideal) over the world of sense is demanded. But how is such supremacy conceivable, if (according to A) the idea in its origin is already only the slave of the objective? On the other hand, if the real world is something wholly independent of us, and is something with which our ideas must conform as their pattern (by A), then it becomes inconceivable how, on the other hand, the real world can conform to the ideas in us (by B). In brief,

in the theoretical certainty we lose the practical; in the practical we lose the theoretical. It is impossible that at the same time there should be truth in our knowledge and reality in our volition.

This contradiction must be solved, if there is to be a philosophy at all. The solution of this problem, or the answering of the question: How can ideas be conceived as conforming to objects, and at the same time objects as conforming to ideas? — is not the first, but is the chief task of transcendental philosophy.

It is easy to see that this problem cannot be solved either in theoretical or practical philosophy, but in a higher one, which is the connecting link of both, and is neither theoretical nor practical, but both at the same time.

How at the same time the objective world conforms to representations in us, and representations in us conform to the objective world, cannot be conceived, unless there exists a preëstablished harmony between the two worlds of the ideal and the real. But this preëstablished harmony is itself not conceivable unless the activity by which the objective world is produced, is originally identical with that which displays itself in volition, and *vice versa*.

Now it is certainly a *productive* activity which manifests itself in volition. All free action is productive, but productive only with consciousness. If, then, since the two activities are only one in principle, we suppose that the same activity which is productive *with* consciousness in free action, is productive *without* consciousness in the production of the world, this preëstablished harmony is a reality, and the contradiction is solved. If we suppose that all this is actually the case, then that original identity of the activity which is engaged in the production of the world, with that which exhibits itself in volition, must manifest itself in the productions of the former, and these must necessarily appear as the productions of an activity at once conscious and unconscious.

Nature, as a whole, no less than in its different productions, will of necessity appear as a work produced with consciousness and yet at the same time as the production of the blindest mechanism. It is the result of purpose without being explainable

as such. The philosophy of the aims of Nature, or teleology, is therefore the required point of union of theoretical and practical philosophy.

D. Heretofore, we have posited only in general terms the identity of the unconscious activity which has produced Nature, and the conscious activity which manifests itself in volition, without having decided where the principle of this activity lies, whether in Nature or in us.

But now the system of knowledge can be regarded as complete only when it reverts to its principle. Transcendental philosophy would therefore be completed only when it also could demonstrate that identity — the highest solution of its entire problem — in its principle (the *Ego*).

It is therefore postulated, that activity, at once conscious and unconscious, can be shown in the subjective, that is in consciousness itself.

Such an activity can be no other than the *æsthetic*, and every work of art can only be conceived as the product of such. The ideal work of art and the real world of objects are therefore products of one and the same activity. The meeting of the two (of the conscious and the unconscious) gives *without* consciousness the real, *with* consciousness the æsthetic world.

The objective world is only the original still unconscious poetry of the soul. The universal organum of philosophy — the keystone of its entire arch — is the philosophy of art.

Section IV. Organ of Transcendental Philosophy

1. The only immediate object of transcendental consideration is the subjective (§ 2). The sole organ of this method of philosophizing is therefore the *inner sense*, and its object is of such a nature that, unlike that of mathematics, it can never become the object of external intuition. The object of mathematics, to be sure, exists as little outside of knowledge, as that of philosophy. The entire existence of mathematics depends upon the intuition. It exists, therefore, only in the intuition; but this intuition itself is an external one. In addition to this the mathematician has

never to do immediately with the intuition — the construction itself — but only with the thing constructed, which can certainly be presented outwardly. The philosopher, however, regards only the act of construction itself, which is purely an internal one.

2. Moreover, the objects of the transcendental philosopher have no existence, except in so far as they are freely produced. One cannot be compelled to this production any more than one can be compelled by the external drawing of a mathematical figure to regard it internally. Just as the existence of a mathematical figure depends upon external sense, so the entire reality of a philosophical concept depends upon the inner sense. The whole object of this philosophy is no other than the action of the intelligence according to fixed laws. This action can be conceived only through a peculiar, direct, inner intuition, and this again is possible only by production. But this is not enough. In philosophizing, one is not only the object, but is always at the same time the subject of the reflection. Two conditions are consequently demanded for the understanding of philosophy. First, the philosopher must be engaged in a continued inner activity, in a continuous production of those original actions of intelligence; second, he must be engaged in continuous reflection upon this productive action; in a word, he must at the same time always be the contemplated (producing) and the contemplating.

3. By this continuous duplicity of production and of intuition, that must become an object which is otherwise reflected by nothing. It cannot be proved here, but will be proved later, that this becoming-reflected on the part of the absolutely unconscious and non-objective, is possible only by an æsthetic act of the imagination. Nevertheless, it is certain from what has already been proved that all philosophy is productive. Philosophy, therefore, as well as art, rests upon the productive faculty, and the difference between the two consists merely in the different direction of the productive power. For whereas production in art is directed outward, in order to reflect the unconscious by products; philosophical production is directed immediately inward, in order to reflect it in intellectual intuition. The special sense by which this kind of philosophy must be grasped is there-

fore the æsthetic sense, and hence it is that the philosophy of art is the true organum of philosophy (§ 3).

From the vulgar reality there exist only two outlets: poetry, which transports us into the ideal world, and philosophy, which causes the real world wholly to vanish before us. It is not clear why the sense for philosophy should be more widely diffused than that for poetry, especially among the classes of men who have not wholly lost the æsthetic organ either by memory work (nothing destroys more directly the productive power) or by dead speculation, which is ruinous to all imaginative power.

4. It is unnecessary to occupy more time with the commonplaces about the sense of truth, or about entire disregard for results, although it might be asked, what other conviction can be sacred to one who questions the most certain of all — that there are things outside of us. We may rather take a glance at the so-called claims of the common understanding.

The common understanding in matters of philosophy has no claims whatsoever, except those which all objects of investigations have, *viz.*, to be perfectly explained.

It is not, therefore, our business to prove that what is held for true, is true, but only to disclose the unavoidableness of its illusions. This implies that the objective world belongs only to the necessary limitations which render self-consciousness (the I am) possible; it is enough for the common understanding, if from this view the necessity of its own view is derived.

For this purpose it is necessary, not only that the inner machinery of our mental activity be disclosed, and the mechanism of necessary ideas revealed, but also that it should be shown by what peculiarity of our nature it is necessary that what has reality only in our intuition, is reflected to us as something existing outside of us.

As natural science produces idealism out of realism, when it intellectualizes the laws of nature into laws of intelligence, or superinduces the formal upon the material (§ 1), so transcendental philosophy produces realism out of idealism when it materializes the laws of intelligence into laws of nature, or introduces the material into the formal.

FIRST DIVISION. THE PRINCIPLE OF TRANSCENDENTAL IDEALISM

SECTION I. THE NECESSITY AND NATURE OF A HIGHEST PRINCIPLE OF KNOWLEDGE

1. Meanwhile we will assume as hypothesis, that there is in general, reality in our knowledge. We will then ask: What are the conditions of this reality? Whether reality *actually* belongs to our knowledge will depend upon whether these conditions, which are so far merely deducible from our hypothesis, can hereafter be shown to be demonstrable.

If all knowledge is based upon the agreement of an objective and subjective (Introd. § 1), then our entire knowledge consists of principles which are not immediately true, but which derive their reality from something else.

The mere juxtaposition of a subjective with a subjective constitutes no proper knowledge. And conversely, true knowledge presupposes a meeting of opposites, whose conjunction can at best be only mediated.

There must be, therefore, in our knowledge, some general mediating property which is the only ground of knowledge.

2. It is assumed as an hypothesis that there is a system in our knowledge, that is to say, there is a whole, which supports itself, and is in harmony with itself. The sceptic denies this presupposition just as he does the first; and like the former hypothesis it can be proven only by the act itself. What then would be the consequence if our knowledge, yes, even if our entire nature, were in itself contradictory? Therefore, let us merely assume that our knowledge is one original whole, and that the system of philosophy gives the outline scheme of this whole, then the question again is, first of all, to enquire concerning the conditions of this whole.

Since every valid system (as *e. g.* that of the universe) must have the basis of its existence in itself, so likewise, if there exists a system of knowledge, the principle of it must lie within the knowledge itself.

3. There can be only one such principle, inasmuch as all truth is absolutely self-identical. There may exist degrees of probability, but truth admits of no degrees. What is true is equally true. But it would be impossible for the truth of all affirmations of knowledge to be absolutely alike, if they derived their truths from different principles (parts of mediation). There must consequently be only one (mediating) principle in all knowledge.

4. This principle is the mediate or indirect principle of every science, but the immediate and direct principle only of the science of all knowledge, or of transcendental philosophy.

By the task of establishing a science of all knowledge, that is, one which makes the subjective first and highest, one is immediately driven to a highest principle of all knowledge.

All objections to such an absolute highest principle of knowledge are precluded by the very idea of transcendental philosophy. They all arise merely from overlooking the limitation of the first problem of this science, which at the very outset withdraws from every objective and keeps in view solely the subjective.

We are not at all concerned with an absolute principle of being, for all those objections hold against it; but are concerned with an absolute principle of knowledge.

But now it is evident that if there were no absolute boundary of knowledge — no something which lays hold of and binds us absolutely in knowledge without our being conscious of it, and which even in the very act of knowing does not become for us an object, for the very reason that it is the principle of all knowledge — then all knowledge, even a knowledge of any particulars, would be impossible.

The transcendental philosopher does not ask: What last foundation of our knowledge may lie outside of it? but, What is the last in our knowledge itself, beyond which we cannot proceed? He seeks the principle of knowledge within knowledge. It is therefore something that can be known.

The assertion: There exists a highest principle of knowledge is not (like the assertion: There exists an absolute principle of

being) a positive but a negative and restricting proposition, meaning only that there is some kind of ultimate from which all knowledge takes its beginning, and beyond which there is no knowledge.

Since the transcendental philosopher (Introd. § 1) makes throughout only the subjective his object, he affirms merely that subjectively, that is to say, for us, there exists some kind of a first knowledge. Whether apart from us, beyond this first knowledge, there really is a something, does not at first concern him at all. Concerning this question the sequel must decide.

The first knowledge is for us undoubtedly the knowledge of ourselves, or self-consciousness. When the idealist accepts this knowledge as the principle of philosophy, it is in conformity with the limited object of his entire task, which has no other object beyond the subjective of knowledge. That self-consciousness is the fixed point to which for us everything is bound, needs no proof. But that this self-consciousness might be indeed only the modification of a higher being — (probably of a higher consciousness, and this of a still higher, and so on *ad infinitum*), — in a word, that even self-consciousness can be in general something at all capable of being explained through something of which we can know nothing, just because the entire synthesis of our knowledge is first constructed through self-consciousness — is of no concern to us as transcendental philosophers. The reason is that self-consciousness is not a kind of being, but a kind of knowledge, and indeed, the highest and final, that for us exists at all.

To proceed farther, it may even be proved, and in part has already been proved (Introd. § 1), that even if the objective is voluntarily accepted as the first, we nevertheless can never go beyond self-consciousness. We are then either driven back in our explanation into an infinite series from the grounded to the ground, or we must voluntarily break the series by setting up an absolute as first, which is in and of itself, cause and effect, subject and object; and since this is possible originally only by means of self-consciousness we must further break the continuity by setting up self-consciousness as first. This is done by natural

science, for which being is primal even as little as for transcendental philosophy (cf. "Outline of a System of Philosophy of Nature)." It places the only reality in an absolute, which is and is of itself cause and effect, that is, in the absolute identity of the subjective and objective, which we term nature, and which again in its highest potency is nothing else but self-consciousness.

Dogmatism, for which being is the original, can indeed explain in no other way except by means of an infinite regress; for the succession of causes and effects along which its explanation runs could only be concluded by something which is at one and the same time in itself cause and effect. But just thereby it would be transformed into natural science, which in turn in its fulness reverts to the principle of transcendental idealism. (Consistent dogmatism exists only in Spinozism; but Spinozism as a real system can again survive only as natural science, the last result of which becomes in turn the principle of transcendental philosophy.)

From the foregoing it is evident that self-consciousness embraces the entire horizon of our knowledge broadened even to the infinite, and remains in every direction the highest. Nevertheless there is for the present purpose no need of this far-reaching consideration, but only of the reflection upon the meaning of our first problem. The following argument will doubtless make it intelligible and self-evident to every one.

It is at present my purpose only to introduce a system into my knowledge, and to seek within knowledge itself that by means of which all individual knowledge is determined. But that whereby everything in my knowledge is determined is without doubt the knowledge of myself. Inasmuch as I desire only to ground my knowledge in itself I seek no further concerning the last ground of that first knowledge (*i. e.* of self-consciousness), which if any such exists must necessarily be outside of knowledge. Self-consciousness is the luminous point in the entire system of knowledge; but it illumines only forwards, not backwards. Granted even that this self-consciousness is only a modification of a being independent of it, which, to be sure, no philosophy can indeed make conceivable, it is still for me at

present no kind of being, but a kind of knowledge, and in this quality only do I here regard it. Through the limitation of my task, which carries me back to the infinite and includes me in the circle of knowledge, self-consciousness becomes for me something independent, and the absolute principle, not of all being, but of all knowledge, since all knowledge, and not merely my own must proceed from it. That knowledge in general, and that this first knowledge in particular, is dependent upon an existence which is independent of it, no dogmatist has yet proved. Up to the present it is just as possible that all existence is only the modification of one knowledge, as that all knowledge is only the modification of one existence. Nevertheless, abstracted and viewed wholly apart from the question, whether the necessary is at all identical with existence and knowledge merely the accident of existence, knowledge for our science becomes independent by the very fact that we consider it only in so far as it is merely subjective.

Whether it is absolutely independent may remain undecided, until such time as science itself decides, whether anything can be thought that is not derived from this knowledge itself.

Against the task itself, or rather against the defining of the task, the dogmatist can still raise no objection, for the reason that I may quite arbitrarily limit my task; while I may not arbitrarily extend my task to something, which, as can be seen in advance, can never fall within the sphere of my knowledge, as, for instance, a last ground of knowledge outside of knowledge. The only possible objection against our definition is this, that the task thus appointed may not be the task of philosophy, its solution not philosophy.

However, what philosophy may be is the very question as yet unsolved. The answering can be the outcome only of philosophy itself. That the solution of this task is philosophy can be proved only by the doing of it, that is, by solving together with this task all those problems which one has ever sought to solve in philosophy.

We affirm, nevertheless, with the same right with which the dogmatist affirms the opposite, that what one has heretofore understood by philosophy is possible only as a science of know

ledge, and has not being, but knowledge for its object; that its principle can therefore not be a principle of being, but only a principle of knowledge. Whether we shall succeed more surely in arriving at being from knowledge, in deriving everything objective from the knowledge which at first we only assumed to be independent for the benefit of our science, and in raising it thereby to absolute independence, — whether we shall succeed more surely in this than the dogmatist in his opposite attempt to create knowledge from being which he assumes to be independent, the sequel must decide.

5. By the first undertaking of our science, which is to seek whether a transition can be found from knowledge as such (in so far as it is act), to the objective in it (which is no act, but a being or an existence), knowledge is already posited as independent. Nothing can be urged against this undertaking itself before we have tried it.

It is therefore likewise posited by this task, that knowledge has an absolute principle in itself; and that this principle lying within knowledge itself shall be also the principle of transcendental philosophy as a science.

But further, every science is a totality of principles with a determined form. If therefore the entire system of science shall be established by means of such a principle, then it must determine not only the content, but also the form of this science.

It is universally assumed that there belongs to philosophy a characteristic form, which is called systematic. To assume this form without deriving it, may be permitted in the other sciences which already presuppose the science of science, but not in this science, which has as its very object the possibility of such a form.

What is scientific form, really, and what is its object? This question must be answered by the science of knowledge, for all the other sciences. Since, however, this science of knowledge is in itself a science, there would be needed a science of knowledge of the science of knowledge. But this again would be a science, and so on *ad infinitum*. The question arises, how this circle, since it is apparently indissoluble, can be explained.

This circle, which is unavoidable for science, cannot be explained, unless it has originally its origin in knowledge itself (the object of science), in such a way that the original content of knowledge presupposes the original form, and conversely that the original form of knowledge presupposes the original content of it, and that both are mutually conditioned. For this purpose, therefore, it would be necessary to find in intelligence itself some point where both form and content originate by one and the same indivisible act of original knowledge. The task of finding this point would have to be identical with that of finding the principle of all knowledge.

The principle of philosophy must therefore be of such a nature that in it the content is conditioned by the form, and again, the form conditioned by the content; and that not one presupposes the other but that they reciprocally presuppose one another. Against this first principle of philosophy, among other things the following argument has been urged. The principle of philosophy must permit of being expressed in a fundamental proposition, and this fundamental proposition shall without doubt not only be formal but also material. But now every proposition, whatever its content, is subject to the laws of logic. Every fundamental proposition, therefore, of a material nature, through the mere fact that it is such, presupposes higher principles, which are those of logic. Now there is nothing lacking to this argument, except that one ought to reverse it. Let any one think of a formal proposition, *e. g.* A = A, as the highest. What is logical in this proposition is merely the form of the identity between A and A; but whence does the A itself come? If A is, it is like itself; but whence is it? Undoubtedly this question cannot be answered by the proposition itself, but only by means of a higher one. The analysis A = A presupposes the synthesis A. It is therefore evident that no formal principle can be thought without a material one; nor a material principle without presupposing a formal one.

From this circle, that every form presupposes a content and every content a form, one cannot extricate one's self, unless some proposition is found in which there is reciprocally conditioned

and made possible the form by means of the content and the content by means of the form.

The first false presupposition in this argument therefore is, that the fundamental propositions of logic are unconditioned, that is to say, cannot be derived from any higher propositions. Now the logical fundamental propositions originate for us only in that we make as content for these what in other propositions is only the form. Logic can therefore only originate through abstraction of determined propositions. If it arises in scientific form, it can only originate through abstraction of the supreme fundamental propositions of knowledge, and since these again as fundamental principles presuppose already the logical form they must be of such a character that in them both form and matter are reciprocally conditioned and produced.

But it must be apparent that this abstraction cannot be made before these highest fundamental principles of knowledge are established; before the science of knowledge itself has been created. This new circle, that the science of knowledge at the same time establishes logic, and yet according to the laws of logic must be created, finds the same explanation as the circle previously set forth. Since in the highest fundamental principles of knowledge the form and the content are mutually conditioned, the science of knowledge must be equally the law and the most perfect exercise of scientific form, and must likewise be absolutely autonomous in its form as well as in its content.

Section II. Deduction of the Principle Itself

We speak here of a deduction of the highest principle. There can be no question of the derivation of this principle from a higher one, nor in general of a proof of its content. The proof can only relate to the worth of this principle, that is, can only prove that this principle is the highest and has all the characteristics which belong to a highest principle.

This deduction can be made by very different methods. We select that one, which, while it appears to us to be the easiest, at the same time permits the true meaning of the principle to be most immediately seen.

1. That knowledge is possible at all — not this or that definite knowledge, but some knowledge, at the very least a knowledge of our ignorance — the sceptic himself admits. If we know anything, this knowledge is either conditioned or unconditioned. Conditioned? then we know it only because it is connected with something unconditioned. We thus come in any case to an unconditioned knowledge. (That there must be something in our knowledge that we do not know from something higher, has already been proven in the preceding chapter.)

The only question is, What is there then unconditionally known?

2. I know unconditionally only that, the knowledge of which is conditioned solely by the subjective, not by the objective. Now it is affirmed that only such knowledge as is expressed in identical propositions is conditioned solely through the subjective. For in the judgment A=A one abstracts entirely from the content of the subject A. Whether A has reality at all or not is entirely indifferent for this knowledge. If, therefore, complete abstraction is made of the reality of the subject, then A is considered solely in so far as it is posited in us, represented by us; one does not inquire at all whether something outside of us corresponds to this presentation. The proposition is evident and certain, regarded entirely apart from the question whether A is something actually existing, or merely imagined, or itself impossible. For the proposition says only this: When I think A, I think nothing but A. The knowledge in this proposition is conditioned solely through my thinking (the subjective); *i. e.* according to the explanation it is unconditioned.

3. But in all knowledge an objective is thought as in conjunction with the subjective. In the proposition A=A there is however no such conjunction. All primal knowledge thus goes beyond mere conceptual identity, and the proposition A=A must itself assume such knowledge. When I think A, I think of it, to be sure, as A; but how does it happen that I think A? If it be an idea freely created, then it can be the foundation of no knowledge; if it be an idea accompanied by the feeling of necessity, then it must have objective reality.

If now all propositions are termed synthetic in which subject and predicate are mediated not merely by the identity in the act of thought but by something foreign to the thought and distinct from it, then our entire knowledge consists solely of synthetic propositions, and only in such propositions is there actual knowledge, *i. e.* knowledge which has its object outside of us.

4. But now synthetic propositions are not unconditioned, *i. e.* certain by themselves, for only the identical or analytical are such (2). Therefore in order that there may be certainty in synthetic propositions—and thereby in our entire knowledge—they must be carried back to an unconditioned something, that is to say, to the identity of the act of thought in general. This however contradicts itself.

5. This contradiction would be capable of solution only in the event that some point might be found in which the identical and synthetical coincide; or in the event that a proposition could be found, which while it is identical is at the same time synthetic, and while it is synthetic is at the same time identical.

In view of those propositions in which an entirely foreign objective is in conjunction with a subjective (and this happens in every synthetic judgment A = B; the predicate or concept always in such cases represents the subjective, and the subject the objective), it is inconceivable how certainty can be attained.

a. Unless there is something absolutely true. For if there were in our knowledge an infinite regress from principle to principle in order to attain to the feeling of that compulsior (of the certainty of the proposition) we should have to rur. backwards, unconsciously at least, through that infinite regress. This is clearly absurd. If the regress is actually infinite then it can in no way be traversed. If it is not infinite, then there is something absolutely true. If such absolute certainty exists, our entire knowledge and every single truth in our knowledge must be interwoven with it. The obscure feeling of this connection produces that feeling of compulsion with which we hold any proposition to be true. This obscure feeling ought to be resolved by philosophy into clear concepts, by revealing that connection and its principal links.

b. That absolute truth can only be identical knowledge. Since now all true knowledge is synthetic, it follows that such absolute truth, inasmuch as it is an identical knowledge, must at the same time be also a synthetic knowledge. If therefore absolute truth exists, there must also exist a point where the synthetic knowledge springs immediately from the identical, and the identical from the synthetic.

6. In order to solve the problem how to find such a point, we must undoubtedly probe still deeper into the opposition between identical and synthetic propositions.

In every proposition two concepts are compared with each other, *i. e.*, they are posited as like or unlike one another. Now in the identical propositions only the act of thought is compared with itself. The synthetic proposition on the other hand goes beyond the mere act of thought. This is because when I think the subject of the proposition I do not likewise think the predicate, as the predicate is added to the subject. The object of my thought is therefore here not merely determined by the fact that it is thought, but it is viewed as real, for real is precisely that which cannot be created by the mere thinking.

If now an identical proposition is that where the concept is compared only with the concept, and a synthetic proposition that where the concept is compared with the object differing from it, then the task of finding a point where the identical knowledge is at the same time synthetic, is equivalent to finding a point in which the object and its concept, the thing and its presentation, are originally, directly, and without any mediation one.

That this problem is identical with that of finding a principle of all knowledge, can be still more briefly proved. How the presentation and the object can harmonize is wholly inexplicable unless there is in knowledge itself a point where both are originally one, or where there exists the most perfect identity of being and of presentation.

7. Since now the presentation is the subjective and the being is the objective, the task, when it is most accurately set, is to find the point where the subject and object are immediately one.

8. By this gradual restriction of the task, it is now likewise as

good as solved. The unmediated identity of the subject and object can exist only where the represented is likewise the representing, the perceived also the perceiving. But this identity of the represented with the representing exists solely in self-consciousness. The point sought is therefore found in self-consciousness.

Explanations.

a. If now we revert to the fundamental principle of identity A=A, we discover that we can derive our principle directly from it. In every identical proposition it was affirmed that the thought is compared with itself; this undoubtedly takes place by means of an act of thought. The proposition A = A therefore presupposes a thought that becomes immediately an object to itself; but an act of thought which becomes its own object exists only in self-consciousness. It is certainly incomprehensible how one can seriously derive from a mere proposition of logic something real; but it is truly comprehensible how one can find in it by reflection upon the act of thought something real, *e. g.* the categories from the logical function of judgment, and similarly the act of self-consciousness from every identical proposition.

b. That the subject and object of thought are one in self-consciousness can become clear to every one solely by the act of self-consciousness itself. It is necessary for this purpose that one at the same time perform this act, and in so doing reflect again upon one's self. Self-consciousness is the act whereby the thinking itself immediately becomes the object, and conversely. This act and none other is self-consciousness. Such act is an absolutely free action, to which one can indeed be guided but cannot be compelled. The readiness to perceive one's self in this act, to discriminate one's self both as thought and as thinking, and again to recognize one's self as identical in such discrimination, is constantly presupposed in what follows.

c. Self-consciousness is an act, but by every act something is accomplished for us. Every thought is an act, and every definite thought is a definite act. By means of every such act there also arises in us a definite conception. The conception is nothing but the act of thinking itself, and abstracted from this act it is no-

thing. By the act of self-consciousness there must likewise originate a conception for us; and this is no other than the conception of the Ego. While I regard myself as the object by means of self-consciousness there originates in me the conception of the Ego; and conversely the conception of the Ego is only the conception of self becoming its own object.

d. The conception of the Ego is accomplished by the act of self-consciousness. Without the act, therefore, the Ego is nothing; its entire reality depends solely upon this act. The Ego can thus be conceived only as act, and it is otherwise nothing.

Whether the external object is nothing different from its conception, whether also here conception and object are one, is a question which is still to be decided. But that the conception of the Ego, that is, the act whereby thought becomes its own object, and the Ego itself (the object) are absolutely one, needs no proof, since the Ego is clearly nothing apart from the act, and in general exists only in this act.

Here, therefore, is that original identity of thought and of object, of appearance and of being, which we sought, and which is nowhere else met with. The Ego does not exist at all before that act whereby the thought becomes its own object. It is therefore nothing other than the thought becoming itself the object, and consequently absolutely nothing apart from the thought. The reason why so many fail to see, in case of the Ego, that its being conceived is identical with its being originated has its explanation solely in the fact, that they neither can perform the act of self-consciousness with freedom, nor are able to reflect upon what originates in this very act. As regards the first, it is to be remarked, that we make a clear distinction between self-consciousness as act, and mere empirical consciousness. What we commonly term consciousness is merely something which goes along with the representations of objects, something which maintains identity amid the change of representations. It is thus purely of an empirical character, for indeed I am thereby conscious of myself, but only as of one having representations. The act here spoken of is one, however, by which I am conscious of myself, not as having this or that determination, but originally;

and this consciousness, in contrast with the other, is called pure consciousness, or self-consciousness κατ' ἐξοχήν.

The genesis of these two kinds of consciousness may be made clearer in the following way. Let one abandon himself wholly to the involuntary succession of representations, then, no matter how manifold or different these may be, they will nevertheless appear as belonging to one identical subject. But if I reflect upon this identity of the subject in the representations, there originates for me the proposition *I think.* It is this *I think* that accompanies all representations and maintains in them the continuity of consciousness. If however one frees one's self from every act of representation in order to become conscious of one's original self, there arises not the proposition *I think,* but the proposition *I am,* which is undoubtedly a higher one. In the proposition *I think* there exists already the expression of a determination or affection of the Ego; the proposition *I am,* on the contrary, is an infinite proposition, because it is one which has no real predicate, but which, for that very reason, may have an infinity of possible predicates.

e. The Ego is nothing distinct from the thought of it; the thought of the Ego and the Ego itself are absolutely one. The Ego, therefore, is absolutely nothing apart from the thought; it is therefore also no thing, no affair, but endlessly the non-objective. This is to be understood in the following way. The Ego is indeed object, but only for itself, and is thus not originally in the world of objects. It becomes an object only by the very fact that it makes itself its own object. It becomes the object not of something external, but always only of itself.

Everything that is not Ego is originally object, and for this very reason is an object not to itself, but to something perceiving outside of it. The original objective is always something known, never a knower. The Ego is known only through its own self-knowledge. Matter is called self-less for the very reason that it has nothing innermost, and exists only as something perceived in a foreign perception.

f. If the Ego is no thing, no affair, then one cannot ask concerning any predicate of the Ego. It has none except this, that it is no

thing. The character of the Ego consists in having no other predicate except that of self-consciousness.

The same result can also be reached in other ways.

That which is the highest principle of knowledge cannot have its ground of knowledge in something higher. Its *principium essendi* and *cognoscendi*, must therefore be one, and coincide in one.

For this very reason the unconditioned can never be sought in any one thing; for what is object, is originally also object of knowledge; whereas what is a principle of all knowledge cannot become at all an object of knowledge, either originally or in itself, except only through a special act of freedom.

The unconditioned can therefore never be sought in the world of objects. (Therefore the purely objective, or matter, is for natural science nothing original, but is for it even as much appearance as it is for transcendental philosophy.)

Unconditioned is termed that which can by no means become a thing, or an affair. The first task of philosophy can therefore be thus expressed: to find something which absolutely cannot be thought as thing. But of this character is only the Ego, and conversely, the Ego is that which is in itself non-objective.

g. If now the Ego is absolutely no object, no thing, it appears difficult to explain how in general a knowledge of it is possible, or what kind of knowledge we have of it.

The Ego is pure act, pure doing, and, because it is the principle of all knowledge, must be absolutely non-objective in knowledge. If it is, therefore, to become an act of knowledge, it can become known only in a way entirely different from common knowledge.

This knowledge must be:

(*a*) Absolutely free, because all other knowledge is not free. It must, therefore, be a knowledge to which the way is not by proofs, conclusions, and the mediation of concepts. It is therefore in general an intuition.

(*b*) It must also be a knowledge whose object is not independent of it, and is therefore a knowledge which is at the same time productive of its object. It is an intuition which is altogether

freely productive, and in which the producing is one and the same with the produced.

Such an intuition is termed *intellectual intuition*, in contrast with the sensible intuition, which never appears as productive of its object, and in which therefore the perceiving-itself is distinct from the perceived.

Such an intuition is the Ego, because through the knowledge the Ego has of itself, the Ego itself (the object) first originates. Since the Ego (as object) is none other than this very knowledge of itself, the Ego originates solely by the fact that it knows itself. The Ego itself is, therefore, a knowledge which at the same time creates itself (as object).

The intellectual intuition is the organ of all transcendental thinking. For the whole aim of transcendental thought is freely to transform into its own object something which is otherwise no object. It presupposes a faculty to produce and at the same time to perceive certain functions of the soul, so that the producing of the object and the perceiving are absolutely one. This faculty, however, is precisely the faculty of intellectual intuition.

Transcendental philosophizing must therefore be constantly accompanied by intellectual intuition. All pretence that this philosophizing cannot be understood has its cause not in the unintelligibility of it, but in the defect of the organ whereby it must be comprehended. Apart from this intuition, philosophizing has itself no substratum that might cause and support thought. This very intuition supplies the place of the objective world in the transcendental thought, and, as it were, carries the flight of speculation. The Ego itself is an object that exists by virtue of the fact that it has knowledge of itself, that is, it is a constant intellectual intuition. Since the sole object of transcendental philosophy is this self-producing activity, the intellectual intuition is for it precisely what space is for geometry. Just as without intuition of space, geometry would be absolutely incomprehensible, because all its constructions are only different methods and ways of qualifying that intuition, so without the intellectual intuition, all philosophy would be incomprehensible, because all its conceptions are only different qualifications of

that production which has itself for an object, that is, of the intellectual intuition (cf. Fichte's "Einleitung in die Wissenschaftslehre" in the "Philosophisches Journal").

No reason need be given why people have perceived something mysterious in this intuition, some special sense feigned by a few, except that some persons are really without it. This, however, is no more strange than that they still entirely lack many another sense whose reality is as little involved in doubt.

h. The Ego is nothing other than a producing which becomes its own object, *i. e.* it is an intellectual intuition. But this intellectual intuition is itself an absolutely free act. It can therefore not be demonstrated, but only demanded. The Ego itself is solely this intuition; the Ego therefore as principle of philosophy is itself only something that is postulated.

Since the time that Reinhold made the scientific founding of philosophy his aim, there has been much talk of a first fundamental proposition from which philosophy would have to proceed. By this one generally understood a theorem in which the entire philosophy should be involved. But it is easily perceived that transcendental philosophy can proceed from no theorem, because it proceeds from the subjective, that is, from that which can become objective only by a distinct act of freedom. A theorem is a proposition which depends upon being. Transcendental philosophy, however, proceeds from no being, but from a free act; and this can only be postulated. Every science that is not empirical must by its first principle already exclude all empiricism, that is, must presuppose its object as not already existing but must create it. In this way, for example, geometry proceeds, since it starts not from theorems but from postulates. It is because the most primal construction in it is postulated, and is left to the pupil to create, that he is at the very outset sent back to self-construction. It is just the same with transcendental philosophy. Unless one bring to it the transcendental method of thought, one must find it incomprehensible. It is, therefore, necessary that one place one's self at the outset through freedom in that method of thought; and this takes place by means of the free act whereby the principle originates. If it be a fact that

transcendental philosophy does not presuppose its objects, it certainly cannot presuppose its first object, the principle; it can postulate it only as one freely to be constructed. As the principle is of its own construction, so are also all its remaining concepts; and the entire science has to do with its own free constructions.

If the principle of philosophy is a postulate, then the object of this postulate must be the most primal construct for the inner sense, *i. e.* must be the Ego, not in so far as it is determined in this or that particular way, but the Ego in general, as production of itself. Through and in this primal construct, it is true, something definite is effected, just as always happens by every definite act of the soul. But the product is surely nothing without the construction; in fact it exists only in that it is constructed; abstracted from the construction it exists as little as the line of the geometer. The geometrical line also is nothing existing, for the line on the board is, as we know, not the line itself, but is recognized only as such because it is taken in connection with the original intuition of the line itself.

What the Ego is, is for this reason just as little demonstrable as what the line is: one can only describe the action by which it originates. If the line could be demonstrated it would not need to be postulated. It is just the same with that transcendental line of the production which must be originally intuited in transcendental philosophy, and from which all other constructions of the science first proceed (cf. "Allgemeine Uebersicht der philosophischen Literatur" in New Philos. Journal, 10. Hft).

i. What comes to us by the original act of intellectual intuition can be expressed in a fundamental principle which one can term the first fundamental principle of philosophy. Now the Ego originates through the intellectual intuition in so far as it is its own product, that is, is at the same time producing and produced. This identity between the Ego in so far as it is the producing and the Ego as produced is expressed in the proposition the I = I. This proposition, since it places opposites as equal, is by no means an identical, but a synthetic proposition.

By means of the proposition I = I, the proposition A = A is therefore transformed into a synthetical proposition, and we

have found the point where the identical knowledge springs immediately from the synthetical, and the synthetical knowledge from the identical. But at this point also is found (Chap. I) the principle of all knowledge. In the proposition I=I, therefore, the principle of all knowledge must be expressed, because this proposition is indeed the only possible one, that is at the same time identical and synthetical.

The mere reflection upon the proposition A=A could have led us to the same conclusion. The proposition A=A appears, to be sure, identical; it could, however, very well also have synthetical significance, that is, if the one A were opposed to the other. One would therefore have to substitute in the place of A, a conception which expresses the original duplicity of identity, and *vice versa.*

Such a conception is that of an object which is at the same time opposed to and on an equality with itself. But of such character is only an object which in itself is both cause and effect, producing and produced, subject and object. The conception of an original identity in duplicity, and conversely, is therefore solely the conception of a subject-object, and this occurs originally only in self-consciousness.

Natural science sets out from nature as at once arbitrarily the producing and the produced, in order to derive the individual from that conception. The unmediated object of knowledge is such an identity only in the unmediated self-consciousness, in the highest potency of becoming its own object, in which the transcendental philosopher at the outset places himself, not arbitrarily, but with freedom. The original duplicity in nature is itself ultimately explained only by assuming nature to be intelligible.

k. The proposition I=I meets at the same time the second demand which is made of the principle of knowledge, that it establish at once both the form and the content of knowledge. For the highest formal fundamental proposition A=A, is of course only possible by the act which is expressed by the proposition I=I, that is, by the act of thinking which becomes its own object, and is identical with itself. The proposition I=I is therefore so far from being conditioned by the fundamental proposition of identity, that on the contrary this latter is con-

ditioned by the former. For if I were not I, then A could also not be A, because the equality which is posited in that proposition expresses after all only an equality between the subject which judges and that in which A is posited as object, that is, an equality between the Ego as subject and object.

General Comments.

1. The contradiction which has been solved by the foregoing deduction is the following: the science of knowledge can proceed from nothing objective, since it begins precisely with the universal doubt in the reality of the objective. The unconditioned-certain, therefore, exists for it only in the absolute non-objective which also proves the non-objectivity of the identical propositions as the solely unconditioned-certain. But how the objective could arise from this original non-objective would not be conceivable, unless that non-objective were an Ego, that is, a principle that becomes its own object. Only what is not originally object, can make itself the object, and thereby become an object. From this original duplicity in itself, every objective for the Ego is evolved that comes into consciousness; and it is that original identity in duplicity which alone brings union and coherence into all synthetic knowledge.

2. Some remarks may still be necessary on the use of language in this philosophy.

Kant in his anthropology finds it remarkable that a new world appears to spring up to the child as soon as it begins to speak of itself as I. This is in fact very natural: it is the intellectual world which reveals itself to him, since whatever can say I to itself lifts itself thereby above the objective world, and enters from a foreign intuition into its own. Philosophy must undoubtedly proceed from that conception in which the entire intellectuality is contained, and from which it is developed.

From this very fact one must see that in the conception of the Ego there exists something higher than the mere expression of individuality. It is the very act of self-consciousness indeed, with which the consciousness of individuality makes its simultaneous appearance, but which itself contains nothing individid

ual. Heretofore the discussion has been only of the Ego as the mere act of self-consciousness; and from it all individuality must yet be derived.

Under the Ego as principle, the individual I is thought of just as little as is the empirical I, — the I which appears in empirical consciousness. The pure consciousness determined and restricted in a different way yields the empirical consciousness. The two, therefore, are separated merely by their restrictions. Remove the restrictions of the empirical and you have the absolute Ego, which is here treated. The pure self-consciousness is an act which lies outside of all time and itself constitutes all time; the empirical consciousness is only one creating itself in time, and in the succession of representations.

The question whether the Ego is a thing in itself, or a phenomenon, is of itself contradictory. It is in general no thing, neither thing in itself, nor phenomenon.

The dilemma which one may here bring forward in reply: Everything must either be something or nothing, etc., rests upon the ambiguity of the concept something. If the something in general is intended to designate something real in contrast with the merely imagined, then the Ego must indeed be something real, since it is the principle of all reality. And just as clearly is it true that because the Ego is principle of all reality, it cannot then be real in the same sense as that to which belongs merely derived reality. The reality which such objector regards as the true one, namely that of things, is merely derived, and is only the reflection of that higher reality. The dilemma strictly viewed is thus equivalent to saying: Everything is either a *thing* or nothing. This is manifestly false, since there certainly exists a higher conception than that of the thing, namely, that of the deed, or of the activity.

This conception must indeed be higher than that of the thing, since the things themselves are to be conceived only as modifications of an activity limited in different ways. The being of the thing does not indeed consist in mere rest or inactivity. For even all space-filling is only a degree of activity, and every thing is only a determined degree of activity with which space is filled.

Since none of the predicates which attach to things belong to the Ego, the paradox is thereby explained, that one cannot say of the Ego, that it is. One is unable to predicate being of the Ego, just because the Ego is being itself. The eternal act of self-consciousness conceived as in no time, which we term Ego, is what gives existence to all things, and which therefore needs no other existence by which to be supported; but appears self-carrying and self-supporting, objectively as the eternal becoming, subjectively as the infinite producing.

3. Before we proceed to the setting up of the system itself, it may be well to show how the principle can establish at the same time both theoretical and practical philosophy. That it does this is a necessary character of the principle, and is thus obvious.

That the principle should be at the same time the principle of theoretical and practical philosophy, is impossible, unless it be both theoretical and practical. Since now a theoretical principle is a theorem, but a practical principle is a command, something must be intermediate between the two. This is the postulate. It borders on the practical philosophy because it is a pure demand, and on the theoretical because it requires a purely theoretical construction. What the postulate derives its compulsory power from is explained by the fact that it is allied to the practical demands. The intellectual intuition is something that one can demand and expect. Whoever has not such faculty at least ought to have it.

4. What every one who has attentively followed us thus far perceives for himself is that the beginning and the end of this philosophy is freedom, the absolutely indemonstrable, that which proves itself by itself. What in all other systems threatens the destruction of freedom is in this system derived from itself. Being, in this system, is only suspended freedom. In a system which makes being the first and highest, not only must knowledge be a mere copy of an original being, but all freedom must also be only a necessary deception, because one is ignorant of the principle whose movements constitute the apparent manifestations of freedom.

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GEORG WILHELM FRIEDRICH HEGEL
(1770–1831)

THE LOGIC OF HEGEL

Translated from the German by*
WILLIAM WALLACE

CHAPTER I. INTRODUCTION

1. PHILOSOPHY misses an advantage enjoyed by the other sciences. It cannot like them rest the existence of its objects on the natural admissions of consciousness, nor can it assume that its method of cognition, either for starting or for continuing, is one already accepted. The objects of philosophy, it is true, are upon the whole the same as those of religion. In both the object is Truth, in that supreme sense in which God and God only is the Truth. Both in like manner go on to treat of the finite worlds of Nature and the human Mind, with their relation to each other and to their truth in God. Some *acquaintance* with its objects, therefore, philosophy may and even must presume, that and a certain interest in them to boot, were it for no other reason than this: that in point of time the mind makes general *images* of objects, long before it makes *notions* of them and that it is only through these mental images, and by recourse to them, that the thinking mind rises to know and comprehend *thinkingly*.

But with the rise of this thinking study of things, it soon becomes evident that thought will be satisfied with nothing short of showing the *necessity* of its facts, of demonstrating the existence of its objects, as well as their nature and qualities. Our original acquaintance with them is thus discovered to be inadequate. We can assume nothing, and assert nothing dogmatically:

* From the *Encyclopaedie der philosophischen Wissenschaften im Grundrisse* (1. Thl. Die Logik), Heidelberg, 1817; 2. verm. Aufl. 1827. Reprinted here from *The Logic of Hegel*, trans. by Wm. Wallace. 2d rev. ed., Oxford, Clarendon Press, 1892.

nor can we accept the assertions and assumptions of others. And yet we must make a beginning: and a beginning, as primary and underived, makes an assumption, or rather is an assumption. It seems as if it were impossible to make a beginning at all.

2. This *thinking study of things* may serve, in a general way, as a description of philosophy. But the description is too wide. If it be correct to say, that thought makes the distinction between man and the lower animals, then everything human is human, for the sole and simple reason that it is due to the operation of thought. Philosophy, on the other hand, is a peculiar mode of thinking — a mode in which thinking becomes knowledge, and knowledge through notions. However great therefore may be the identity and essential unity of the two modes of thought, the philosophic mode gets to be different from the more general thought which acts in all that is human, in all that gives humanity its distinctive character. And this difference connects itself with the fact that the strictly human and thought-induced phenomena of consciousness do not originally appear in the form of a thought, but as a feeling, a perception, or mental image — all of which aspects must be distinguished from the form of thought proper.

11. The special conditions which call for the existence of philosophy may be thus described. The mind or spirit, when it is sentient or perceptive, finds its object in something sensuous; when it imagines, in a picture or image; when it wills, in an aim or end. But in contrast to, or it may be only in distinction from, these forms of its existence and of its objects, the mind has also to gratify the cravings of its highest and most inward life. That innermost self is thought. Thus the mind renders thought its object. In the best meaning of the phrase, it comes to itself; for thought is its principle, and its very unadulterated self. But while thus occupied, thought entangles itself in contradictions, *i. e.* loses itself in the hard-and-fast non-identity of its thoughts, and so, instead of reaching itself, is caught and held in its counterpart. This result, to which honest but narrow thinking leads the mere understanding, is resisted by the loftier craving of which we have spoken. That craving expresses the

perseverance of thought, which continues true to itself, even in this conscious loss of its native rest and independence, "that it may overcome" and work out in itself the solution of its own contradictions.

To see that thought in its very nature is dialectical, and that, as understanding, it must fall into contradiction, — the negative of itself, will form one of the main lessons of logic. When thought grows hopeless of ever achieving, by its own means, the solution of the contradiction which it has by its own action brought upon itself, it turns back to those solutions of the question with which the mind had learned to pacify itself in some of its other modes and forms. Unfortunately, however, the retreat of thought has led it, as Plato noticed even in his time, to a very uncalled-for hatred of reason (misology); and it then takes up against its own endeavours that hostile attitude of which an example is seen in the doctrine that "immediate" knowledge, as it is called, is the exclusive form in which we become cognisant of truth.

12. The rise of philosophy is due to these cravings of thought. Its point of departure is Experience; including under that name both our immediate consciousness and the inductions from it. Awakened, as it were, by this stimulus, thought is vitally characterised by raising itself above the natural state of mind, above the senses and inferences from the senses into its own unadulterated element, and by assuming, accordingly, at first a stand-aloof and negative attitude towards the point from which it started. Through this state of antagonism to the phenomena of sense its first satisfaction is found in itself, in the Idea of the universal essence of these phenomena: an Idea (the Absolute, or God) which may be more or less abstract. Meanwhile, on the other hand, the sciences, based on experience, exert upon the mind a stimulus to overcome the form in which their varied contents are presented, and to elevate these contents to the rank of necessary truth. For the facts of science have the aspect of a vast conglomerate, one thing coming side by side with another, as if they were merely given and presented, — as in short devoid of all essential or necessary connexion. In consequence of this stimulus thought is dragged out of its unrealised universality

and its fancied or merely possible satisfaction, and impelled onwards to a development from itself. On one hand this development only means that thought incorporates the contents of science, in all their speciality of detail as submitted. On the other it makes these contents imitate the action of the original creative thought, and present the aspect of a free evolution determined by the logic of the fact alone.

15. Each of the parts of philosophy is a philosophical whole, a circle rounded and complete in itself. In each of these parts, however, the philosophical Idea is found in a particular specificality or medium. The single circle, because it is a real totality, bursts through the limits imposed by its special medium, and gives rise to a wider circle. The whole of philosophy in this way resembles a circle of circles. The Idea appears in each single circle, but, at the same time, the whole Idea is constituted by the system of these peculiar phases, and each is a necessary member of the organisation.

17. It may seem as if philosophy, in order to start on its course, had, like the rest of the sciences, to begin with a subjective presupposition. The sciences postulate their respective objects, such as space, number, or whatever it be; and it might be supposed that philosophy had also to postulate the existence of thought. But the two cases are not exactly parallel. It is by the free act of thought that it occupies a point of view, in which it is for its own self, and thus gives itself an object of its own production. Nor is this all. The very point of view, which originally is taken on its own evidence only, must in the course of the science be converted to a result, — the ultimate result in which philosophy returns into itself and reaches the point with which it began. In this manner philosophy exhibits the appearance of a circle which closes with itself, and has no beginning in the same way as the other sciences have. To speak of a beginning of philosophy has a meaning only in relation to a person who proposes to commence the study, and not in relation to the science as science. The same thing may be thus expressed. The notion of science — the notion therefore with which we start — which, for the very reason that it is initial, implies a separation

between the thought which is our object, and the subject philosophising which is, as it were, external to the former, must be grasped and comprehended by the science itself. This is in short the one single aim, action, and goal of philosophy — to arrive at the notion of its notion, and thus secure its return and its satisfaction.

18. As the whole science, and only the whole, can exhibit what the Idea or system of reason is, it is impossible to give in a preliminary way a general impression of a philosophy. Nor can a division of philosophy into its parts be intelligible, except in connexion with the system. A preliminary division, like the limited conception from which it comes, can only be an anticipation. Here however it is premised that the Idea turns out to be the thought which is completely identical with itself, and not identical simply in the abstract, but also in its action of setting itself over against itself, so as to gain a being of its own, and yet of being in full possession of itself while it is in this other. Thus philosophy is subdivided into three parts:

I. Logic, the science of the Idea in and for itself.

II. The Philosophy of Nature: the science of the Idea in its otherness.

III. The Philosophy of Mind: the science of the Idea come back to itself out of that otherness.

As observed in § 15, the differences between the several philosophical sciences are only aspects or specialisations of the one Idea or system of reason, which and which alone is alike exhibited in these different media. In Nature nothing else would have to be discerned, except the Idea: but the Idea has here divested itself of its proper being. In Mind, again, the Idea has asserted a being of its own, and is on the way to become absolute. Every such form in which the idea is expressed, is at the same time a passing or fleeting stage: and hence each of these subdivisions has not only to know its contents as an object which has being for the time, but also in the same act to expound how these contents pass into their higher circle. To represent the relation between them as a division, therefore, leads to misconception: for it co-ordinates the several parts or sciences one beside another.

as if they had no innate development, but were, like so many species, really and radically distinct.

CHAPTER II. PRELIMINARY NOTION

19. LOGIC IS THE SCIENCE OF THE PURE IDEA; pure, that is, because the Idea is in the abstract medium of Thought.

This definition, and the others which occur in these introductory outlines, are derived from a survey of the whole system, to which accordingly they are subsequent. The same remark applies to all prefatory notions whatever about philosophy.

Logic might have been defined as the science of thought, and of its laws and characteristic forms. But thought, as thought, constitutes only the general medium, or qualifying circumstance, which renders the Idea distinctively logical. If we identify the Idea with thought, thought must not be taken in the sense of a method or form, but in the sense of the self-developing totality of its laws and peculiar terms. These laws are the work of thought itself, and not a fact which it finds and must submit to.

From different points of view, Logic is either the hardest or the easiest of the sciences. Logic is hard, because it has to deal not with perceptions, nor, like geometry, with abstract representations of the senses, but with pure abstractions; and because it demands a force and facility of withdrawing into pure thought, of keeping firm hold on it, and of moving in such an element. Logic is easy, because its facts are nothing but our own thought and its familiar forms or terms: and these are the acmé of simplicity, the a b c of everything else. They are also what we are best acquainted with: such as, "Is" and "Is not": quality and magnitude: being potential and being actual: one, many, and so on. But such an acquaintance only adds to the difficulties of the study; for while, on the one hand, we naturally think it is not worth our trouble to occupy ourselves any longer with things so familiar, on the other hand, the problem is to become acquainted with them in a new way, quite opposite to that in which we know them already.

The utility of Logic is a matter which concerns its bearings

upon the student, and the training it may give for other purposes. This logical training consists in the exercise in thinking which the student has to go through (this science is the thinking of thinking): and in the fact that he stores his head with thoughts in their native unalloyed character. It is true that Logic, being the absolute form of truth, and another name for the very truth itself, is something more than merely useful. Yet if what is noblest, most liberal and most independent is also most useful, Logic has some claim to the latter character. Its utility must then be estimated at another rate than exercise in thought for the sake of the exercise.

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24. With these explanations and qualifications, thoughts may be termed Objective Thoughts, — among which are also to be included the forms which are more especially discussed in the common logic, where they are usually treated as forms of conscious thought only. *Logic therefore coincides with Metaphysics, the science of things set and held in thoughts,* — thoughts accredited able to express the essential reality of things.

(2) Logic is the study of thought pure and simple, or of the pure thought-forms. In the ordinary sense of the term, by thought we generally represent to ourselves something more than simple and unmixed thought; we mean some thought, the material of which is from experience. Whereas in logic a thought is understood to include nothing else but what depends on thinking and what thinking has brought into existence. It is in these circumstances that thoughts are *pure* thoughts. The mind is then in its own home-element and therefore free: for freedom means that the other thing with which you deal is a second self — so that you never leave your own ground but give the law to yourself. In the impulses or appetites the beginning is from something else, from something which we feel to be external. In this case then we speak of dependence. For freedom it is necessary that we should feel no presence of something else which is not ourselves. The natural man, whose motions follow the rule only of his appetites, is not his own master. Be he as self-willed as he may, the constituents of his will and

opinion are not his own, and his freedom is merely formal. But when we *think*, we renounce our selfish and particular being, sink ourselves in the thing, allow thought to follow its own course, — and, if we add anything of our own, we think ill.

If in pursuance of the foregoing remarks we consider Logic to be the system of the pure types of thought, we find that the other philosophical sciences, the Philosophy of Nature and the Philosophy of Mind, take the place, as it were, of an Applied Logic, and that Logic is the soul which animates them both. Their problem in that case is only to recognise the logical forms under the shapes they assume in Nature and Mind, — shapes which are only a particular mode of expression for the forms of pure thought. If for instance we take the syllogism (not as it was understood in the old formal logic, but at its real value), we shall find it gives expression to the law that the particular is the middle term which fuses together the extremes of the universal and the singular. The syllogistic form is a universal form of all things. Everything that exists is a particular, which couples together the universal and the singular. But Nature is weak and fails to exhibit the logical forms in their purity. Such a feeble exemplification of the syllogism may be seen in the magnet. In the middle or point of indifference of a magnet, its two poles, however they may be distinguished, are brought into one. Physics also teaches us to see the universal or essence in Nature: and the only difference between it and the Philosophy of Nature is that the latter brings before our mind the adequate forms of the notion in the physical world.

It will now be understood that Logic is the all-animating spirit of all the sciences, and its categories the spiritual hierarchy. They are the heart and centre of things: and yet at the same time they are always on our lips, and, apparently at least, perfectly familiar objects. But things thus familiar are usually the greatest strangers. Being, for example, is a category of pure thought: but to make "Is" an object of investigation never occurs to us. Common fancy puts the Absolute far away in a world beyond. The Absolute is rather directly before us, so

present that so long as we think, we must, though without express consciousness of it, always carry it with us and always use it. Language is the main depository of these types of thought; and one use of the grammatical instruction which children receive is unconsciously to turn their attention to distinctions of thought.

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To ask if a category is true or not, must sound strange to the ordinary mind: for a category apparently becomes true only when it is applied to a given object, and apart from this application it would seem meaningless to inquire into its truth. But this is the very question on which everything turns. We must however in the first place understand clearly what we mean by Truth. In common life truth means the agreement of an object with our conception of it. We thus pre-suppose an object to which our conception must conform. In the philosophical sense of the word, on the other hand, truth may be described, in general abstract terms, as the agreement of a thought-content with itself. This meaning is quite different from the one given above. At the same time the deeper and philosophical meaning of truth can be partially traced even in the ordinary usage of language. Thus we speak of a true friend; by which we mean a friend whose manner of conduct accords with the notion of friendship. In the same way we speak of a true work of Art. Untrue in this sense means the same as bad, or self-discordant. In this sense a bad state is an untrue state; and evil and untruth may be said to consist in the contradiction subsisting between the function or notion and the existence of the object. Of such a bad object we may form a correct representation, but the import of such representation is inherently false. Of these correctnesses, which are at the same time untruths, we may have many in our heads. — God alone is the thorough harmony of notion and reality. All finite things involve an untruth: they have a notion and an existence, but their existence does not meet the requirements of the notion. For this reason they must perish, and then the incompatibility between their notion and their existence becomes manifest. It is in the kind that the

individual animal has its notion: and the kind liberates itself from this individuality by death.

The study of truth, or as it is here explained to mean, consistency, constitutes the proper problem of logic. In our everyday mind we are never troubled with questions about the truth of the forms of thought. — We may also express the problem of logic by saying that it examines the forms of thought touching their capability to hold truth. And the question comes to this: What are the forms of the infinite, and what are the forms of the finite? Usually no suspicion attaches to the finite forms of thought; they are allowed to pass unquestioned. But it is from conforming to finite categories in thought and action that all deception originates.

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CHAPTER VI. LOGIC FURTHER DEFINED AND DIVIDED

79. In point of form Logical doctrine has three sides: (α) the Abstract side, or that of understanding: (β) the Dialectical, or that of negative reason: (γ) the Speculative, or that of positive reason.

These three sides do not make three *parts* of logic, but are stages or "moments" in every logical entity, that is, of every notion and truth whatever. They may all be put under the first stage, that of understanding, and so kept isolated from each other; but this would give an inadequate conception of them. — The statement of the dividing lines and the characteristic aspects of logic is at this point no more than historical and anticipatory.

80. (α) Thought, as *Understanding*, sticks to fixity of characters and their distinctness from one another: every such limited abstract it treats as having a subsistence and being of its own.

In our ordinary usage of the term thought and even notion, we often have before our eyes nothing more than the operation of Understanding. And no doubt thought is primarily an exercise of Understanding: — only it goes further, and the notion is not a function of Understanding merely. The action of Under-

standing may be in general described as investing its subject-matter with the form of universality. But this universal is an abstract universal: that is to say, its opposition to the particular is so rigorously maintained, that it is at the same time also reduced to the character of a particular again. In this separating and abstracting attitude towards its objects, Understanding is the reverse of immediate perception and sensation, which, as such, keep completely to their native sphere of action in the concrete.

It is by referring to this opposition of Understanding to sensation or feeling that we must explain the frequent attacks made upon thought for being hard and narrow, and for leading, if consistently developed, to ruinous and pernicious results. The answer to these charges, in so far as they are warranted by their facts, is, that they do not touch thinking in general, certainly not the thinking of Reason, but only the exercise of Understanding. It must be added however, that the merit and rights of the mere Understanding should unhesitatingly be admitted. And that merit lies in the fact, that apart from Understanding there is no fixity or accuracy in the region either of theory or of practice.

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81. (β) In the Dialectical stage these finite characterisations or formulæ supersede themselves, and pass into their opposites.

(I) But when the Dialectical principle is employed by the understanding separately and independently, — especially as seen in its application to philosophical theories, Dialectic becomes Scepticism; in which the result that ensues from its action is presented as a mere negation.

(II) It is customary to treat Dialectic as an adventitious art, which for very wantonness introduces confusion and a mere semblance of contradiction into definite notions. And in that light, the semblance is the nonentity, while the true reality is supposed to belong to the original dicta of understanding. Often, indeed, Dialectic is nothing more than a subjective see-saw of arguments *pro* and *con*, where the absence of sterling thought is disguised by the subtlety which gives birth to such

arguments. But in its true and proper character, Dialectic is the very nature and essence of everything predicated by mere understanding, — the law of things and of the finite as a whole. Dialectic is different from "Reflection." In the first instance, Reflection is that movement out beyond the isolated predicate of a thing which gives it some reference, and brings out its relativity, while still in other respects leaving it its isolated validity. But by Dialectic is meant the in-dwelling tendency outwards by which the one-sidedness and limitation of the predicates of understanding is seen in its true light, and shown to be the negation of them. For anything to be finite is just to suppress itself and put itself aside. Thus understood the Dialectical principle constitutes the life and soul of scientific progress, the dynamic which alone gives immanent connexion and necessity to the body of science; and, in a word, is seen to constitute the real and true, as opposed to the external, exaltation above the finite.

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(1) . . . Dialectic, it may be added, is no novelty in philosophy. Among the ancients Plato is termed the inventor of Dialectic; and his right to the name rests on the fact, that the Platonic philosophy first gave the free scientific, and thus at the same time the objective, form to Dialectic. Socrates, as we should expect from the general character of his philosophising, has the dialectical element in a predominantly subjective shape, that of Irony. He used to turn his Dialectic, first against ordinary consciousness, and then especially against the Sophists. In his conversations he used to simulate the wish for some clearer knowledge about the subject under discussion, and after putting all sorts of questions with that intent, he drew on those with whom he conversed to the opposite of what their first impressions had pronounced correct. If, for instance, the Sophists claimed to be teachers, Socrates by a series of questions forced the Sophist Protagoras to confess that all learning is only recollection. In his more strictly scientific dialogues Plato employs the dialectical method to show the finitude of all hard and fast terms of understanding. Thus in the Parmenides he deduces

the many from the one, and shows nevertheless that the many cannot but define itself as the one. In this grand style did Plato treat Dialectic. In modern times it was, more than any other, Kant who resuscitated the name of Dialectic, and restored it to its post of honour. He did it, as we have seen (§ 48), by working out the Antinomies of the reason. The problem of these Antinomies is no mere subjective piece of work oscillating between one set of grounds and another; it really serves to show that every abstract proposition of understanding, taken precisely as it is given, naturally veers round into its opposite.

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82. (γ) The Speculative stage, or stage of Positive Reason, apprehends the unity of terms (propositions) in their opposition, — the affirmative, which is involved in their disintegration and in their transition.

(1) The result of Dialectic is positive, because it has a definite content, or because its result is not empty and abstract nothing, but the negation of certain specific propositions which are contained in the result, — for the very reason that it is a resultant and not an immediate nothing. (2) It follows from this that the "reason" result, though it be only a thought and abstract, is still a concrete, being not a plain formal unity, but a unity of distinct propositions. Bare abstractions or formal thoughts are therefore no business of philosophy, which has to deal only with concrete thoughts. (3) The logic of mere Understanding is involved in Speculative logic, and can at will be elicited from it, by the simple process of omitting the dialectical and "reasonable" element. When that is done, it becomes what the common logic is, a descriptive collection of sundry thought-forms and rules which, finite though they are, are taken to be something infinite.

If we consider only what it contains, and not how it contains it, the true reason-world, so far from being the exclusive property of philosophy, is the right of every human being, on whatever grade of culture or mental growth he may stand; which would justify man's ancient title of rational being. The general mode by which experience first makes us aware of the reasonable

order of things is by accepted and unreasoned belief; and the character of the rational, as already noted (§ 45), is to be unconditioned, and thus to be self-contained, self-determining. In this sense man above all things becomes aware of the reasonable order, when he knows of God, and knows him to be the completely self-determined. Similarly, the consciousness a citizen has of his country and its laws is a perception of the reason-world, so long as he looks up to them as unconditioned and likewise universal powers, to which he must subject his individual will. And in the same sense, the knowledge and will of the child is rational, when he knows his parents' will, and wills it.

Now, to turn these rational (of course positively-rational) realities into speculative principles, the only thing needed is that they be *thought.* The expression "Speculation" in common life is often used with a very vague and at the same time secondary sense, as when we speak of a matrimonial or a commercial speculation. By this we only mean two things: first, that what is immediately at hand has to be passed and left behind; and secondly, that the subject-matter of such speculations, though in the first place only subjective, must not remain so, but be realised or translated into objectivity.

83. Logic is subdivided into three parts:—

I. The Doctrine of Being:

II. The Doctrine of Essence:

III. The Doctrine of Notion and Idea.

That is, into the Theory of Thought:

I. In its immediacy: the notion implicit and in germ.

II. In its reflection and mediation: the being-for-self and show of the notion.

III. In its return into itself, and its developed abiding by itself: the notion in and for itself.

The division of Logic now given, as well as the whole of the previous discussion on the nature of thought, is anticipatory: and the justification, or proof of it, can only result from the detailed treatment of thought itself. For in philosophy, to prove means to show how the subject by and from itself makes itself what it is. The relation in which these three leading grades of

thought, or of the logical Idea, stand to each other must be conceived as follows. Truth comes only with the notion: or, more precisely, the notion is the truth of being and essence, both of which, when separately maintained in their isolation, cannot but be untrue, the former because it is exclusively immediate, and the latter because it is exclusively mediate. Why then, it may be asked, begin with the false and not at once with the true? To which we answer that truth, to deserve the name, must authenticate its own truth: which authentication, here within the sphere of logic, is given when the notion demonstrates itself to be what is mediated by and with itself, and thus at the same time to be truly immediate. This relation between the three stages of the logical Idea appears in a real and concrete shape thus: God, who is the truth, is known by us in his truth, that is, as absolute spirit, only in so far as we at the same time recognise that the world which He created, nature and the finite spirit, are, in their difference from God, untrue.

CHAPTER VII. THE DOCTRINE OF BEING

84. Being is the notion implicit only: its special forms have the predicate "is"; when they are distinguished they are each of them an "other": and the shape which dialectic takes in them, *i. e.* their further specialisation, is a passing over into another. This further determination, or specialisation, is at once a forth-putting and in that way a disengaging of the notion implicit in being; and at the same time the withdrawing of being inwards, its sinking deeper into itself. Thus the explication of the notion in the sphere of being does two things: it brings out the totality of being, and it abolishes the immediacy of being, or the form of being as such.

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A. Quality

(*a*) *Being.*

86. Pure Being makes the beginning: because it is on one hand pure thought, and on the other immediacy itself, simple

and indeterminate; and the first beginning cannot be mediated by anything, or be further determined.

All doubts and admonitions, which might be brought against beginning the science with abstract empty being, will disappear, if we only perceive what a beginning naturally implies. It is possible to define being as "I=I," "Absolute Indifference" or Identity, and so on. Where it is felt necessary to begin either with what is absolutely certain, *i. e.* the certainty of one's self, or with a definition or intuition of the absolute truth, these and other forms of the kind may be looked on as if they must be the first. But each of these forms contains a mediation, and hence cannot be the real first: for all mediation implies advance made from a first on to a second, and proceeding from something different. If I=I, or even the intellectual intuition, are really taken to mean no more than the first, they are in this mere immediacy identical with being: while conversely, pure being, if abstract no longer, but including in it mediation, is pure thought or intuition.

If we enunciate Being as a predicate of the Absolute, we get the first definition of the latter. The Absolute is Being. This is (in thought) the absolutely initial definition, the most abstract and stinted. It is the definition given by the Eleatics, but at the same time is also the well-known definition of God as the sum of all realities. It means, in short, that we are to set aside that limitation which is in every reality, so that God shall be only the real in all reality, the superlatively real.

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(2) . . . It is sufficient to mention here, that logic begins where the proper history of philosophy begins. Philosophy began in the Eleatic school, especially with Parmenides. Parmenides, who conceives the absolute as Being, says that "Being alone is and nothing is not." Such was the true starting-point of philosophy, which is always knowledge by thought: and here for the first time we find pure thought seized and made an object to itself.

Men indeed thought from the beginning (for thus only were they distinguished from the animals). But thousands of years had to elapse before they came to apprehend thought in its

purity, and to see in it the truly objective. The Eleatics are celebrated as daring thinkers. But this nominal admiration is often accompanied by the remark that they went too far, when they made Being alone true, and denied the truth of every other object of consciousness. We must go further than mere Being, it is true: and yet it is absurd to speak of the other contents of our consciousness as somewhat as it were outside and beside Being, or to say that there are other things, as well as Being. The true state of the case is rather as follows. Being, as Being, is nothing fixed or ultimate: it yields to dialectic and sinks into its opposite, which, also taken immediately, is Nothing. After all, the point is, that Being is the first pure Thought; whatever else you may begin with (the I=I, the absolute indifference, or God himself), you begin with a figure of materialised conception, not a product of thought; and that, so far as its thought-content is concerned, such beginning is merely Being.

87. But this mere Being, as it is mere abstraction, is therefore the absolutely negative: which, in a similarly immediate aspect, is just NOTHING.

(1) Hence was derived the second definition of the Absolute; the Absolute is the Nought. In fact this definition is implied in saying that the thing-in-itself is the indeterminate, utterly without form and so without content, — or in saying that God is only the supreme Being and nothing more; for this is really declaring him to be the same negativity as above. The Nothing which the Buddhists make the universal principle, as well as the final aim and goal of everything, is the same abstraction.

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The distinction between Being and Nought is, in the first place, only implicit, and not yet actually made: they only *ought* to be distinguished. A distinction of course implies two things, and that one of them possesses an attribute which is not found in the other. Being however is an absolute absence of attributes, and so is Nought. Hence the distinction between the two is only meant to be; it is a quite nominal distinction, which is at the same time no distinction. In all other cases of difference there is some common point which comprehends both

things. Suppose *e. g.* we speak of two different species: the genus forms a common ground for both. Both in the case of mere Being and Nothing, distinction is without a bottom to stand upon: hence there can be no distinction, both determinations being the same bottomlessness. If it be replied that Being and Nothing are both of them thoughts, so that thought may be reckoned common ground, the objector forgets that Being is not a particular or definite thought, and hence, being quite indeterminate, is a thought not to be distinguished from Nothing. — It is natural too for us to represent Being as absolute riches, and Nothing as absolute poverty. But if when we view the whole world we can only say that everything *is*, and nothing more, we are neglecting all speciality and, instead of absolute plenitude, we have absolute emptiness. The same stricture is applicable to those who define God to be mere Being; a definition not a whit better than that of the Buddhists, who make God to be Nought, and who from that principle draw the further conclusion that self-annihilation is the means by which man becomes God.

88. Nothing, if it be thus immediate and equal to itself, is also conversely the same as Being is. The truth of Being and of Nothing is accordingly the unity of the two: and this unity is BECOMING.

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(3) It may perhaps be said that nobody can form a notion of the unity of Being and Nought. As for that, the notion of the unity is stated in the sections preceding, and that is all: apprehend that, and you have comprehended this unity. What the objector really means by comprehension — by a notion — is more than his language properly implies: he wants a richer and more complex state of mind, a pictorial conception which will propound the notion as a concrete case and one more familiar to the ordinary operations of thought. And so long as incomprehensibility means only the want of habituation for the effort needed to grasp and abstract thought, free from all sensuous admixture, and to seize a speculative truth, the reply to the criticism is, that philosophical knowledge is undoubtedly distinct in kind from the mode of knowledge best known in common

life, as well as from that which reigns in the other sciences. But if to have no notion merely means that we cannot represent in imagination the oneness of Being and Nought, the statement is far from being true; for every one has countless ways of envisaging this unity. To say that we have no such conception can only mean, that in none of these images do we recognise the notion in question, and that we are not aware that they exemplify it. The readiest example of it is Becoming. Every one has a mental idea of Becoming, and will even allow that it is *one* idea: he will further allow that, when it is analysed, it involves the attribute of Being, and also what is the very reverse of Being, viz. Nothing: and that these two attributes lie undivided in the one idea: so that Becoming is the unity of Being and Nothing. — Another tolerably plain example is a Beginning. In its beginning, the thing is not yet, but it is more than merely nothing, for its Being is already in the Beginning. Beginning is itself a case of Becoming; only the former term is employed with an eye to the further advance. — If we were to adapt logic to the more usual method of the sciences, we might start with the representation of a Beginning as abstractly thought, or with Beginning as such, and then analyse this representation; and perhaps people would more readily admit, as a result of this analysis, that Being and Nothing present themselves as undivided in unity.

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As the first concrete thought-term, Becoming is the first adequate vehicle of truth. In the history of philosophy, this stage of the logical Idea finds its analogue in the system of Heraclitus. When Heraclitus says, All is flowing (πάντα ῥεῖ), he enunciates Becoming as the fundamental feature of all existence, whereas the Eleatics, as already remarked, saw the only truth in Being, rigid processless Being. Glancing at the principle of the Eleatics, Heraclitus then goes on to say: Being no more is than not-Being (οὐδὲν μᾶλλον τὸ ὂν τοῦ μὴ ὄντος ἐστὶ): a statement expressing the negativity of abstract Being, and its identity with not-Being, as made explicit in Becoming: both abstractions being alike untenable. This may be looked at as an instance of the real refutation of one system by another. To refute a philosophy is

to exhibit the dialectical movement in its principle, and thus reduce it to a constituent member of a higher concrete form of the Idea. Even Becoming however, taken at its best on its own ground, is an extremely poor term: it needs to grow in depth and weight of meaning. Such deepened force we find *e. g.* in Life. Life is a Becoming; but that is not enough to exhaust the notion of life. A still higher form is found in Mind. Here too is Becoming, but richer and more intensive than mere logical Becoming. The elements, whose unity constitutes mind, are not the bare abstracts of Being and of Nought, but the system of the logical Idea and of Nature.

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B. Quantity

(*a*) *Pure Quantity.*

99. Quantity is pure being, where the mode or character is no longer taken as one with the being itself, but explicitly put as superseded or indifferent.

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Quantity, of course, is a stage of the Idea: and as such it must have its due, first as a logical category, and then in the world of objects, natural as well as spiritual. Still even so, there soon emerges the different importance attaching to the category of quantity according as its objects belong to the natural or to the spiritual world. For in Nature, where the form of the Idea is to be other than, and at the same time outside, itself, greater importance is for that very reason attached to quantity than in the spiritual world, the world of free inwardness. No doubt we regard even spiritual facts under a quantitative point of view; but it is at once apparent that in speaking of God as a Trinity, the number three has by no means the same prominence, as when we consider the three dimensions of space or the three sides of a triangle; — the fundamental feature of which last is just to be a surface bounded by three lines. Even inside the realm of Nature we find the same distinction of greater or less importance of quantitative features. In the inorganic world, Quantity plays, so to say, a more prominent part than in the organic. Even in

organic nature when we distinguish mechanical functions from what are called chemical, and in the narrower sense, physical, there is the same difference. Mechanics is of all branches of science, confessedly, that in which the aid of mathematics can be least dispensed with, — where indeed we cannot take one step without them. On that account mechanics is regarded next to mathematics as the science *par excellence*; which leads us to repeat the remark about the coincidence of the materialist with the exclusively mathematical point of view. After all that has been said, we cannot but hold it, in the interest of exact and thorough knowledge, one of the most hurtful prejudices, to seek all distinction and determinateness of objects merely in quantitative considerations. Mind to be sure is more than Nature and the animal is more than the plant: but we know very little of these objects and the distinction between them, if a more and less is enough for us, and if we do not proceed to comprehend them in their peculiar, that is their qualitative character.

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(*b*) *Quantum* (*How Much*).

101. Quantity, essentially invested with the exclusionist character which it involves, is QUANTUM (or How Much): *i. e.* limited quantity.

Quantum is, as it were, the determinate Being of quantity: whereas mere quantity corresponds to abstract Being, and the Degree, which is next to be considered, corresponds to Being-for-self. As for the details of the advance from mere quantity to quantum, it is founded on this: that whilst in mere quantity the distinction, as a distinction of continuity and discreteness, is at first only implicit, in a quantum the distinction is actually made, so that quantity in general now appears as distinguished or limited. But in this way the quantum breaks up at the same time into an indefinite multitude of Quanta or definite magnitudes. Each of these definite magnitudes, as distinguished from the others, forms a unity, while on the other hand, viewed *per se*, it is a many. And, when that is done, the quantum is described as Number.

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(*c*) *Degree.*

103. The limit (in a quantum) is identical with the whole of the quantum itself. As *in itself* multiple, the limit is Extensive magnitude; as in itself *simple* determinateness (qualitative simplicity), it is Intensive magnitude or DEGREE.

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104. In Degree the notion of quantum is explicitly put. It is magnitude as indifferent on its own account and simple: but in such a way that the character (or modal being) which makes it a quantum lies quite outside it in other magnitudes. In this contradiction, where the *independent* indifferent limit is absolute *externality*, the INFINITE QUANTITATIVE PROGRESSION is made explicit — an immediacy which immediately veers round into its counterpart, into mediation (the passing beyond and over the quantum just laid down), and *vice versâ*.

Number is a thought, but thought in its complete self-externalisation. Because it is a thought, it does not belong to perception: but it is a thought which is characterised by the externality of perception. — Not only therefore *may* the quantum be increased or diminished without end: the very notion of quantum is thus to push out and out beyond itself. The infinite quantitative progression is only the meaningless repetition of one and the same contradiction, which attaches to the quantum, both generally and, when explicitly invested with its special character, as degree. Touching the futility of enunciating this contradiction in the form of infinite progression, Zeno, as quoted by Aristotle, rightly says, "It is the same to say a thing once, and to say it for ever."

(1) If we follow the usual definition of the mathematicians, given in § 99, and say that magnitude is what can be increased or diminished, there may be nothing to urge against the correctness of the perception on which it is founded; but the question remains, how we come to assume such a capacity of increase or diminution. If we simply appeal for an answer to experience, we try an unsatisfactory course; because apart from the fact that we should merely have a material image of magnitude, and not

the thought of it, magnitude would come out as a bare possibility (of increasing or diminishing) and we should have no key to the necessity for its exhibiting this behaviour. In the way of our logical evolution, on the contrary, quantity is obviously a grade in the process of self-determining thought; and it has been shown that it lies in the very notion of quantity to shoot out beyond itself. In that way, the increase or diminution (of which we have heard) is not merely possible, but necessary.

(2) The quantitative infinite progression is what the reflective understanding usually relies upon when it is engaged with the general question of Infinity. The same thing however holds good of this progression, as was already remarked on the occasion of the qualitatively infinite progression. As was then said, it is not the expression of a true, but of a wrong infinity; it never gets further than a bare "ought," and thus really remains within the limits of finitude. The quantitative form of this infinite progression, which Spinoza rightly calls a mere imaginary infinity (*infinitum imaginationis*), is an image often employed by poets, such as Haller and Klopstock, to depict the infinity, not of Nature merely, but even of God himself. Thus we find Haller, in a famous description of God's infinity, saying:—

> Ich haufe ungeheure Zahlen,
> Gebirge Millionen auf,
> Ich setze Zeit auf Zeit
> Und Welt auf Welt zu Hauf,
> Und wenn ich von der grausen Hoh'
> Mit Schwindel wieder nach Dir seh:
> Ist alle Macht der Zahl,
> Vermehrt zu Tausendmal,
> Noch nicht ein Theil von Dir.[1]

Here then we meet, in the first place, that continual extrusion of quantity, and especially of number, beyond itself, which Kant describes as "eery." The only really "eery" thing about it is the wearisomeness of ever fixing, and anon unfixing a limit,

[1] I heap up monstrous numbers, mountains of millions; I pile time upon time, and world on the top of world; and when from the awful height I cast a dizzy look towards Thee, all the power of number, multiplied a thousand times, is not yet one part of Thee.

without advancing a single step. The same poet, however, well adds to that description of false infinity the closing line:—

Ich zieh sie ab, und Du liegst ganz vor mir.[1]

Which means, that the true infinite is more than a mere world beyond the finite, and that we, in order to become conscious of it, must renounce that *progressus in infinitum.*

. . . .

C. Measure

107. Measure is the qualitative quantum, in the first place as immediate,—a quantum, to which a determinate being or a quality is attached.

Measure, where quality and quantity are in one, is thus the completion of Being. Being, as we first apprehend it, is something utterly abstract and characterless: but it is the very essence of Being to characterise itself, and its complete characterisation is reached in Measure. Measure, like the other stages of Being, may serve as a definition of the Absolute: God, it has been said, is the Measure of all things. It is this idea which forms the ground-note of many of the ancient Hebrew hymns, in which the glorification of God tends in the main to show that He has appointed to everything its bound: to the sea and the solid land, to the rivers and mountains; and also to the various kinds of plants and animals. To the religious sense of the Greeks the divinity of measure, especially in respect of social ethics, was represented by Nemesis. That conception implies a general theory that all human things, riches, honour, and power, as well as joy and pain, have their definite measure, the transgression of which brings ruin and destruction.

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CHAPTER VIII. THE DOCTRINE OF ESSENCE

112. The terms in Essence are always mere pairs of correlatives, and not yet absolutely reflected in themselves: hence in essence the actual unity of the notion is not realised, but only

[1] These I remove, and Thou liest all before me.

postulated by reflection. Essence, — which is Being coming into mediation with itself through the negativity of itself — is self-relatedness, only in so far as it is relation to an Other, — this Other however coming to view at first not as something which *is*, but as postulated and hypothetised. — Being has not vanished: but, firstly, Essence, as simple self-relation, is Being, and secondly, as regards its one-sided characteristic of immediacy, Being is deposed to a mere negative, to a seeming or reflected light — Essence accordingly is Being thus reflecting light into itself.

The Absolute is the Essence. This is the same definition as the previous one that the Absolute is Being, in so far as Being likewise is simple self-relation. But it is at the same time higher, because Essence is Being that has gone into itself: that is to say, the simple self-relation (in Being) is expressly put as negation of the negative, as immanent self-mediation. — Unfortunately when the Absolute is defined to be the Essence, the negativity which this implies is often taken only to mean the withdrawal of all determinate predicates. This negative action of withdrawal or abstraction thus falls outside of the Essence — which is thus left as a mere result apart from its premisses, — the *caput mortuum* of abstraction. But as this negativity, instead of being external to Being, is its own dialectic, the truth of the latter, viz. Essence, will be Being as retired within itself, — immanent Being. That reflection, or light thrown into itself, constitutes the distinction between Essence and immediate Being, and is the peculiar characteristic of Essence itself.

Any mention of Essence implies that we distinguish it from Being: the latter is immediate, and, compared with the Essence, we look upon it as mere seeming. But this seeming is not an utter nonentity and nothing at all, but Being superseded and put by. The point of view given by the Essence is in general the standpoint of "Reflection." This word "reflection" is originally applied, when a ray of light in a straight line impinging upon the surface of a mirror is thrown back from it. In this phenomenon we have two things, — first an immediate fact which is, and secondly the deputed, derivated, or transmitted

phase of the same. — Something of this sort takes place when we reflect, or think upon an object; for here we want to know the object, not in its immediacy, but as derivative or mediated. The problem or aim of philosophy is often represented as the ascertainment of the essence of things: a phrase which only means that things instead of being left in their immediacy, must be shown to be mediated by, or based upon, something else. The immediate Being of things is thus conceived under the magic of a rind or curtain behind which the Essence lies hidden.

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A. Essence as Ground of Existence

(*a*) *The pure principles or categories of Reflection.*

(*α*) IDENTITY

115. The Essence lights up *in itself* or is mere reflection: and therefore is only self-relation, not as immediate but as reflected. And that reflex relation is SELF-IDENTITY.

This Identity becomes an Identity in form only, or of the understanding, if it be held hard and fast, quite aloof from difference. Or, rather, abstraction is the imposition of this Identity of form, the transformation of something inherently concrete into this form of elementary simplicity. And this may be done in two ways. Either we may neglect a part of the multiple features which are found in the concrete thing (by what is called analysis) and select only one of them; or, neglecting their variety, we may concentrate the multiple characters into one.

If we associate Identity with the Absolute, making the Absolute the subject of a proposition, we get: The Absolute is what is identical with itself. However true this proposition may be, it is doubtful whether it be meant in its truth: and therefore it is at least imperfect in the expression. For it is left undecided, whether it means the abstract Identity of understanding, — abstract, that is, because contrasted with the other characteristics of Essence, or the Identity which is inherently concrete. In the latter case, as will be seen, true Identity is first discoverable in the Ground, and, with a higher truth, in the Notion.

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Identity is, in the first place, the repetition of what we had earlier as Being, but as *become*, through supersession of its character of immediateness. It is therefore Being as Ideality.—It is important to come to a proper understanding on the true meaning of Identity: and, for that purpose, we must especially guard against taking it as abstract Identity, to the exclusion of all Difference. That is the touch-stone for distinguishing all bad philosophy from what alone deserves the name of philosophy. Identity in its truth, as an Ideality of what immediately is, is a high category for our religious modes of mind as well as all other forms of thought and mental activity. The true knowledge of God, it may be said, begins when we know him as identity,—as absolute identity. To know so much is to see that all the power and glory of the world sinks into nothing in God's presence, and subsists only as the reflection of His power and His glory. In the same way, Identity, as self-consciousness, is what distinguishes man from nature, particularly from the brutes which never reach the point of comprehending themselves as "I," that is, pure self-contained unity. So again, in connexion with thought, the main thing is not to confuse the true Identity, which contains Being and its characteristics ideally transfigured in it, with an abstract Identity, identity of bare form. All the charges of narrowness, hardness, meaninglessness, which are so often directed against thought from the quarter of feeling and immediate perception, rest on the perverse assumption that thought acts only as a faculty of abstract Identification. The Formal Logic itself confirms this assumption by laying down the supreme law of thought (so-called) which has been discussed above. If thinking were no more than an abstract Identity, we could not but own it to be a most futile and tedious business. No doubt the notion, and the idea too, are identical with themselves; but identical only in so far as they at the same time involve distinction.

(β) DIFFERENCE

116. Essence is mere Identity and reflection in itself only as it is self-relating negativity, and in that way self-repulsion. It contains therefore essentially the characteristic of DIFFERENCE.

Other-being is here no longer qualitative, taking the shape of the character or limit. It is now in Essence, in self-relating essence, and therefore the negation is at the same time a relation, — is, in short, Distinction, Relativity, Mediation.

To ask, "How Identity comes to Difference," assumes that Identity as mere abstract Identity is something of itself, and Difference also something else equally independent. This supposition renders an answer to the question impossible. If Identity is viewed as diverse from Difference, all that we have in this way is but Difference; and hence we cannot demonstrate the advance to difference, because the person who asks for the How of the progress thereby implies that for him the starting-point is non-existent. The question then when put to the test has obviously no meaning, and its proposer may be met with the question what he means by Identity; whereupon we should soon see that he attaches no idea to it at all, and that Identity is for him an empty name. As we have seen, besides, Identity is undoubtedly a negative, — not however an abstract empty Nought, but the negation of Being and its characteristics. Being so, Identity is at the same time self-relation, and, what is more, negative self-relation; in other words, it draws a distinction between it and itself.

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(γ) THE GROUND

121. The GROUND is the unity of identity and difference, the truth of what difference and identity have turned out to be, — the reflection-into-self, which is equally a reflection-into-another, and *vice versa*. It is essence put explicitly as a totality.

The maxim of the Ground runs thus: Everything has its Sufficient Ground: that is, the true essentiality of any thing is not the predication of it as identical with itself, or as different (various), or merely positive, or merely negative, but as having its Being in an other, which, being its self-same, is its essence. And to this extent the essence is not abstract reflection into self, but into an other. The Ground is the essence in its own inward-

ness; the essence is intrinsically a ground; and it is a ground only when it is a ground of somewhat, of an other.

We must be careful, when we say that the ground is the unity of identity and difference, not to understand by this unity an abstract identity. Otherwise we only change the name, while we still think the identity (of understanding) already seen to be false. To avoid this misconception we may say that the ground, besides being the unity, is also the difference of identity and difference. In that case in the ground, which promised at first to supersede contradiction, a new contradiction seems to arise. It is however a contradiction which so far from persisting quietly in itself, is rather the expulsion of it from itself. The ground is a ground only to the extent that it affords ground: but the result which thus issued from the ground is only itself. In this lies its formalism. The ground and what is grounded are one and the same content: the difference between the two is the mere difference of form which separates simple self-relation, on the one hand, from mediation or derivativeness on the other. Inquiry into the grounds of things goes with the point of view which, as already noted (note to § 112), is adopted by Reflection. We wish, as it were, to see the matter double, first in its immediacy, and secondly in its ground, where it is no longer immediate. This is the plain meaning of the law of sufficient ground, as it is called; it asserts that things should essentially be viewed as mediated. The manner in which Formal Logic establishes this law of thought, sets a bad example to other sciences. Formal Logic asks these sciences not to accept their subject-matter as it is immediately given; and yet herself lays down a law of thought without deducing it, — in other words, without exhibiting its mediation. With the same justice as the logician maintains our faculty of thought to be so constituted that we must ask for the ground of everything, might the physicist, when asked why a man who falls into water is drowned, reply that man happens to be so organised that he cannot live under water; or the jurist, when asked why a criminal is punished, reply that civil society happens to be so constituted that crimes cannot be left unpunished.

Yet even if logic be excused the duty of giving a ground for

the law of the sufficient ground, it might at least explain what is to be understood by a ground. The common explanation, which describes the ground as what has a consequence, seems at the first glance more lucid and intelligible than the preceding definition in logical terms. If you ask however what the consequence is, you are told that it is what has a ground; and it becomes obvious that the explanation is intelligible only because it assumes what in our case has been reached as the termination of an antecedent movement of thought. And this is the true business of logic: to show that those thoughts, which as usually employed merely float before consciousness neither understood nor demonstrated, are really grades in the self-determination of thought. It is by this means that they are understood and demonstrated.

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B. Appearance

131. The Essence must appear or shine forth. Its shining or reflection in it is the suspension and translation of it to immediacy, which, whilst as reflection-on-self it is matter or subsistence, is also form, reflection-on-something-else, a subsistence which sets itself aside. To show or shine is the characteristic by which essence is distinguished from being, — by which it is essence; and it is this show which, when it is developed, shows itself, and is Appearance. Essence accordingly is not something beyond or behind appearance, but just because it is the essence which exists — the existence is Appearance (Forth-shining).

Existence stated explicitly in its contradiction is Appearance. But appearance (forth-shining) is not to be confused with a mere show (shining). Show is the proximate truth of Being or immediacy. The immediate, instead of being, as we suppose, something independent, resting on its own self, is a mere show, and as such it is packed or summed up under the simplicity of the immanent essence. The essence is, in the first place, the sum total of the showing itself, shining in itself (inwardly); but, far from abiding in this inwardness, it comes as a ground forward into existence; and this existence being grounded not in itself,

but on something else, is just appearance. In our imagination we ordinarily combine with the term appearance or phenomenon the conception of an indefinite congeries of things existing, the being of which is purely relative, and which consequently do not rest on a foundation of their own, but are esteemed only as passing stages. But in this conception it is no less implied that essence does not linger behind or beyond appearance. Rather it is, we may say, the infinite kindness which lets its own show freely issue into immediacy, and graciously allows it the joy of existence. The appearance which is thus created does not stand on its own feet, and has its being not in itself but in something else. God who is the essence, when He lends existence to the passing stages of his own show in himself, may be described as the goodness that creates a world: but He is also the power above it, and the righteousness, which manifests the merely phenomenal character of the content of this existing world, whenever it tries to exist in independence.

Appearance is in every way a very important grade of the logical idea. It may be said to be the distinction of philosophy from ordinary consciousness that it sees the merely phenomenal character of what the latter supposes to have a self-subsistent being. The significance of appearance however must be properly grasped, or mistakes will arise. To say that anything is a *mere* appearance may be misinterpreted to mean that, as compared with what is merely phenomenal, there is greater truth in the immediate, in that which *is*. Now in strict fact, the case is precisely the reverse. Appearance is higher than mere Being, — a richer category because it holds in combination the two elements of reflection-into-self and reflection-into-another: whereas Being (or immediacy) is still mere relationlessness, and apparently rests upon itself alone. Still, to say that anything is *only* an appearance suggests a real flaw, which consists in this, that Appearance is still divided against itself and without intrinsic stability. Beyond and above mere appearance comes in the first place Actuality, the third grade of Essence, of which we shall afterwards speak.

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C. Actuality

142. Actuality is the unity, become immediate, of essence with existence, or of inward with outward. The utterance of the actual is the actual itself: so that in this utterance it remains just as essential, and only is essential, in so far as it is in immediate external existence.

We have ere this met Being and Existence as forms of the immediate. Being is, in general, unreflected immediacy and transition into another. Existence is immediate unity of being and reflection; hence appearance: it comes from the ground, and falls to the ground. In actuality this unity is explicitly put, and the two sides of the relation identified. Hence the actual is exempted from transition, and its externality is its energising. In that energising it is reflected into itself: its existence is only the manifestation of itself, not of another.

Actuality and thought (or Idea) are often absurdly opposed. How commonly we hear people saying that, though no objection can be urged against the truth and correctness of a certain thought, there is nothing of the kind to be seen in actuality, or it cannot be actually carried out! People who use such language only prove that they have not properly apprehended the nature either of thought or of actuality. Thought in such a case is, on one hand, the synonym for a subjective conception, plan, intention or the like, just as actuality, on the other, is made synonymous with external and sensible existence. This is all very well in common life, where great laxity is allowed in the categories and the names given to them: and it may of course happen that *e. g.* the plan, or so-called idea, say of a certain method of taxation, is good and advisable in the abstract, but that nothing of the sort is found in so-called actuality, or could possibly be carried out under the given conditions. But when the abstract understanding gets hold of these categories and exaggerates the distinction they imply into a hard and fast line of contrast, when it tells us that in this actual world we must knock ideas out of our heads, it is necessary energetically to protest against these doctrines, alike in the name of science and of sound reason.

For on the one hand Ideas are not confined to our heads merely, nor is the Idea, upon the whole, so feeble as to leave the question of its actualisation or non-actualisation dependent on our will. The Idea is rather the absolutely active as well as actual. And on the other hand actuality is not so bad and irrational, as purblind or wrong-headed and muddle-brained would-be reformers imagine. So far is actuality, as distinguished from mere appearance, and primarily presenting a unity of inward and outward, from being in contrariety with reason, that it is rather thoroughly reasonable, and everything which is not reasonable must on that very ground cease to be held actual. The same view may be traced in the usages of educated speech, which declines to give the name of real poet or real statesman to a poet or a statesman who can do nothing really meritorious or reasonable.

143. (α) Viewed as an identity in general, Actuality is first of all POSSIBILITY — the reflection-into-self which, as in contrast with the concrete unity of the actual, is taken and made an abstract and unessential essentiality. Possibility is what is essential to reality, but in such a way that it is at the same time only a possibility.

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144. (β) But the Actual in its distinction from possibility (which is reflection-into-self) is itself only the outward concrete, the unessential immediate. In other words, to such extent as the actual is primarily (§ 142) the simple merely immediate unity of Inward and Outward, it is obviously made an unessential outward, and thus at the same time (§ 140) it is merely inward, the abstraction of reflection-into-self. Hence it is itself characterised as a merely possible. When thus valued at the rate of a mere possibility, the actual is a CONTINGENT or Accidental, and, conversely, possibility is mere Accident itself or CHANCE.

145. Possibility and Contingency are the two factors of Actuality, — Inward and Outward, put as mere forms which constitute the externality of the actual. They have their reflection-into-self on the body of actual fact, or content, with its

intrinsic definiteness which gives the essential ground of their characterisation. The finitude of the contingent and the possible lies, therefore, as we now see, in the distinction of the form-determination from the content: and, therefore, it depends on the content alone whether anything is contingent and possible.

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147. (γ) When this externality (of actuality) is thus developed into a circle of the two categories of possibility and immediate actuality, showing the intermediation of the one by the other, it is what is called REAL POSSIBILITY. Being such a circle, further, it is the totality, and thus the content, the actual fact or affair in its all-round definiteness. Whilst in like manner, if we look at the distinction between the two characteristics in this unity, it realises the concrete totality of the form, the immediate self-translation of inner into outer, and of outer into inner. This self-movement of the form is ACTIVITY, carrying into effect the fact or affair as a *real* ground which is self-suspended to actuality, and carrying into effect the contingent actuality, the conditions; *i. e.* it is their reflection-in-self, and their self-suspension to another actuality, the actuality of the actual fact. If all the conditions are at hand, the fact (event) *must* be actual; and the fact itself is one of the conditions: for being in the first place only inner, it is at first itself only pre-supposed. Developed actuality, as the coincident alternation of inner and outer, the alternation of their opposite motions combined into a single motion, is NECESSITY.

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The theory however which regards the world as determined through necessity and the belief in a divine providence are by no means mutually excluding points of view. The intellectual principle underlying the idea of divine providence will hereafter be shown to be the notion. But the notion is the truth of necessity, which it contains in suspension in itself; just as, conversely, necessity is the notion implicit. Necessity is blind only so long as it is not understood. There is nothing therefore more mistaken than the charge of blind fatalism made against the Philosophy of History, when it takes for its problem to understand

the necessity of every event. The philosophy of history rightly understood takes the rank of a Théodicée; and those, who fancy they honour Divine Providence by excluding necessity from it, are really degrading it by this exclusiveness to a blind and irrational caprice. In the simple language of the religious mind which speaks of God's eternal and immutable decrees, there is implied an express recognition that necessity forms part of the essence of God. In his difference from God, man, with his own private opinion and will, follows the call of caprice and arbitrary humour, and thus often finds his acts turn out something quite different from what he had meant and willed. But God knows what he wills, is determined in his eternal will neither by accident from within nor from without, and what he wills he also accomplishes, irresistibly.

159. The passage from necessity to freedom, or from actuality into the notion, is the very hardest, because it proposes that independent actuality shall be thought as having all its substantiality in the passing over and identity with the other independent actuality. The notion, too, is extremely hard, because it is itself just this very identity. But the actual substance as such, the cause, which in its exclusiveness resists all invasion, is *ipso facto* subjected to necessity or the destiny of passing into dependency: and it is this subjection rather where the chief hardness lies. To think necessity, on the contrary, rather tends to melt that hardness. For thinking means that, in the other, one meets with one's self. — It means a liberation, which is not the fligh of abstraction, but consists in that which is actual having itse not as something else, but as its own being and creation, in th other actuality with which it is bound up by the force of necessity. As existing in an individual form, this liberation is called I: as developed to its totality, it is free Spirit; as feeling, it is Love; and as enjoyment, it is Blessedness. — The great vision of substance in Spinoza is only a potential liberation from finite exclusiveness and egoism: but the notion itself realises for its own both the power of necessity and actual freedom.

When, as now, the notion is called the truth of Being and Essence, we must expect to be asked, why we do not begin with

the notion? The answer is that, where knowledge by thought is our aim, we cannot begin with the truth, because the truth, when it forms the beginning, must rest on mere assertion. The truth when it is thought must as such verify itself to thought. If the notion were put at the head of Logic, and defined, quite correctly in point of content, as the unity of Being and Essence, the following question would come up: What are we to think under the terms "Being" and "Essence," and how do they come to be embraced in the unity of the Notion? But if we answered these questions, then our beginning with the notion would be merely nominal. The real start would be made with Being, as we have here done: with this difference, that the characteristics of Being as well as those of Essence would have to be accepted uncritically from figurate conception, whereas we have observed Being and Essence in their own dialectical development and learnt how they lose themselves in the unity of the notion.

CHAPTER IX. THE DOCTRINE OF THE NOTION

160. The NOTION is the principle of freedom, the power of substance self-realised. It is a systematic whole, in which each of its constituent functions is the very total which the notion is, and is put as indissolubly one with it. Thus in its self-identity it has original and complete determinateness.

The position taken up by the notion is that of absolute idealism. Philosophy is a knowledge through notions because it sees that what on other grades of consciousness is taken to have Being, and to be naturally or immediately independent, is but a constituent stage in the Idea. In the logic of understanding, the notion is generally reckoned a mere form of thought, and treated as a general conception. It is to this inferior view of the notion that the assertion refers, so often urged on behalf of the heart and sentiment, that notions as such are something dead, empty, and abstract. The case is really quite the reverse. The notion is, on the contrary, the principle of all life, and thus possesses at the same time a character of thorough concreteness.

That it is so follows from the whole logical movement up to this point, and need not be here proved. The contrast between form and content, which is thus used to criticise the notion when it is alleged to be merely formal, has, like all the other contrasts upheld by reflection, been already left behind and overcome dialectically or through itself. The notion, in short, is what contains all the earlier categories of thought merged in it. It certainly is a form, but an infinite and creative form, which includes, but at the same time releases from itself, the fulness of all content. And so too the notion may, if it be wished, be styled abstract, if the name concrete is restricted to the concrete facts of sense or of immediate perception. For the notion is not palpable to the touch, and when we are engaged with it, hearing and seeing must quite fail us. And yet, as it was before remarked, the notion is a true concrete; for the reason that it involves Being and Essence, and the total wealth of these two spheres with them, merged in the unity of thought.

If, as was said at an earlier point, the different stages of the logical idea are to be treated as a series of definitions of the Absolute, the definition which now results for us is that the Absolute is the Notion. That necessitates a higher estimate of the notion, however, than is found in formal conceptualist Logic, where the notion is a mere form of our subjective thought, with no original content of its own. But if Speculative Logic thus attaches a meaning to the term notion so very different from that usually given, it may be asked why the same word should be employed in two contrary acceptations, and an occasion thus given for confusion and misconception. The answer is that, great as the interval is between the speculative notion and the notion of Formal Logic, a closer examination shows that the deeper meaning is not so foreign to the general usages of language as it seems at first sight. We speak of the deduction of a content from the notion, *e. g.* of the specific provisions of the law of property from the notion of property; and so again we speak of tracing back these material details to the notion. We thus recognise that the notion is no mere form without a content of its own: for if it were, there would be in the one case nothing

to deduce from such a form, and in the other case to trace a given body of fact back to the empty form of the notion would only rob the fact of its specific character, without making it understood.

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162. The doctrine of the notion is divided into three parts. (1) The first is the doctrine of the SUBJECTIVE or Formal NOTION. (2) The second is the doctrine of the notion invested with the character of immediacy, or of OBJECTIVITY. (3) The third is the doctrine of the IDEA, the subject-object, the unity of notion and objectivity, the absolute truth.

A. THE SUBJECTIVE NOTION

(a) *The Notion as Notion.*

163. The Notion as Notion contains the three following "moments" or functional parts. (1) The first is UNIVERSALITY — meaning that it is in free equality with itself in its specific character. (2) The second is PARTICULARITY — that is, the specific character, in which the universal continues serenely equal to itself. (3) The third is INDIVIDUALITY — meaning the reflection-into-self of the specific characters of universality and particularity; — which negative self-unity has complete and original determinateness, without any loss to its self-identity or universality.

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164. Universality, particularity, and individuality are, taken in the abstract, the same as identity, difference, and ground. But the universal is the self-identical, with the express qualification, that it simultaneously contains the particular and the individual. Again, the particular is the different or the specific character, but with the qualification that it is in itself universal and is as an individual. Similarly the individual must be understood to be a subject or substratum, which involves the genus and species in itself and possesses a substantial existence. Such is the explicit or realised inseparability of the functions of the notion in their difference (§ 160) — what may be called the clear-

ness of the notion, in which each distinction causes no dimness or interruption, but is quite as much transparent.

No complaint is oftener made against the notion than that it is *abstract*. Of course it is abstract, if abstract means that the medium in which the notion exists is thought in general and not the sensible thing in its empirical concreteness. It is abstract also, because the notion falls short of the idea. To this extent the subjective notion is still formal. This however does not mean that it ought to have or receive another content than its own. It is itself the absolute form, and so is all specific character, but as that character is in its truth. Although it be abstract therefore, it is the concrete, concrete altogether, the subject as such. The absolutely concrete is the mind (see end of § 159) — the notion when it *exists* as notion distinguishing itself from its objectivity, which notwithstanding the distinction still continues to be its own. Everything else which is concrete, however rich it be, is not so intensely identical with itself and therefore not so concrete on its own part, — least of all what is commonly supposed to be concrete, but is only a congeries held together by external influence. — What are called notions, and in fact specific notions, such as man, house, animal, &c., are simply denotations and abstract representations. These abstractions retain out of all the functions of the notion only that of universality; they leave particularity and individuality out of account and have no development in these directions. By so doing they just miss the notion.

165. It is the element of Individuality which first explicitly differentiates the elements of the notion. Individuality is the negative reflection of the notion into itself, and it is in that way at first the free differentiating of it as the first negation, by which the specific character of the notion is realized, but under the form of particularity. That is to say, the different elements are in the first place only qualified as the several elements of the notion, and, secondly, their identity is no less explicitly stated, the one being said to be the other. This realised particularity of the notion is the Judgment.

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(*b*) *The Judgment.*

166. The JUDGMENT is the notion in its particularity, as a connexion which is also a distinguishing of its functions, which are put as independent and yet as identical with themselves, not with one another.

One's first impression about the Judgment is the independence of the two extremes, the subject and the predicate. The former we take to be a thing or term *per se*, and the predicate a general term outside the said subject and somewhere in our heads. The next point is for us to bring the latter into combination with the former, and in this way frame a Judgment. The copula "is" however enunciates the predicate *of* the subject, and so that external subjective subsumption is again put in abeyance, and the Judgment taken as a determination of the object itself. — The etymological meaning of the Judgment (*Urtheil*) in German goes deeper, as it were declaring the unity of the notion to be primary, and its distinction to be the original partition. And that is what the Judgment really is.

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B. THE OBJECT

194. The OBJECT is immediate being, because insensible to difference, which in it has suspended itself. It is, further, a totality in itself, whilst at the same time (as this identity is only the *implicit* identity of its dynamic elements) it is equally indifferent to its immediate unity. It thus breaks up into distinct parts, each of which is itself the totality. Hence the object is the absolute contradiction between a complete independence of the multiplicity, and the equally complete non-independence of the different pieces.

The definition, which states that the Absolute is the Object, is most definitely implied in the Leibnitzian Monad. The Monads are each an object, but an object implicitly "representative," indeed the total representation of the world. In the simple unity of the Monad, all difference is merely ideal, not independent or real. Nothing from without comes into the monad

it is the whole notion in itself, only distinguished by its own greater or less development. None the less, this simple totality parts into the absolute multeity of differences, each becoming an independent monad. In the monad of monads, and the Pre-established Harmony of their inward developments, these substances are in like manner again reduced to "ideality" and unsubstantiality. The philosophy of Leibnitz, therefore, represents contradiction in its complete development.

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(2) Objectivity contains the three forms of Mechanism, Chemism, and Teleology. The object of mechanical type is the immediate and undifferentiated object. No doubt it contains difference, but the different pieces stand, as it were, without affinity to each other, and their connexion is only extraneous. In chemism, on the contrary, the object exhibits an essential tendency to differentiation, in such a way that the objects are what they are only by their relation to each other: this tendency to difference constitutes their quality. The third type of objectivity, the teleological relation, is the unity of mechanism and chemism. Design, like the mechanical object, is a self-contained totality, enriched however by the principle of differentiation which came to the fore in chemism, and thus referring itself to the object that stands over against it. Finally, it is the realization of design which forms the transition to the Idea.

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C. The Idea

213. The Idea is truth in itself and for itself, — the absolute unity of the notion and objectivity. Its "ideal" content is nothing but the notion in its detailed terms: its "real" content is only the exhibition which the notion gives itself in the form of external existence, whilst yet, by enclosing this shape in its ideality, it keeps it in its power, and so keeps itself in it.

The definition, which declares the Absolute to be the Idea, is itself absolute. All former definitions come back to this. The Idea is the Truth: for Truth is the correspondence of objectivity with the notion: — not of course the correspondence of external

things with my conceptions, — for these are only *correct* conceptions held by *me*, the individual person. In the idea we have nothing to do with the individual, nor with figurate conceptions, nor with external things. And yet, again, everything actual, in so far as it is true, is the Idea, and has its truth by and in virtue of the Idea alone. Every individual being is some one aspect of the Idea: for which, therefore, yet other actualities are needed, which in their turn appear to have a self-subsistence of their own. It is only in them altogether and in their relation that the notion is realised. The individual by itself does not correspond to its notion. It is this limitation of its existence which constitutes the finitude and the ruin of the individual.

When we hear the Idea spoken of, we need not imagine something far away beyond this mortal sphere. The idea is rather what is completely present: and it is found, however confused and degenerated, in every consciousness. We conceive the world to ourselves as a great totality which is created by God, and so created that in it God has manifested himself to us. We regard the world also as ruled by Divine Providence: implying that the scattered and divided parts of the world are continually brought back, and made conformable, to the unity from which they have issued. The purpose of philosophy has always been the intellectual ascertainment of the Idea; and everything deserving the name of philosophy has constantly been based on the consciousness of an absolute unity where the understanding sees and accepts only separation. — It is too late now to ask for proof that the Idea is the truth. The proof of that is contained in the whole deduction and development of thought up to this point. The idea is the result of this course of dialectic. Not that it is to be supposed that the idea is mediate only, *i. e.* mediated through something else than itself. It is rather its own result, and being so, is no less immediate than mediate. The stages hitherto considered, viz. those of Being and Essence, as well as those of Notion and of Objectivity, are not, when so distinguished, something permanent, resting upon themselves. They have proved to be dialectical; and their only truth is that they are dynamic elements of the idea.

214. The Idea may be described in many ways. It may be called reason (and this is the proper philosophical signification of reason); subject-object; the unity of the ideal and the real, of the finite and the infinite, of soul and body; the possibility which has its actuality in its own self; that of which the nature can be thought only as existent, &c. All these descriptions apply, because the Idea contains all the relations of understanding, but contains them in their infinite self-return and self-identity.

It is easy work for the understanding to show that everything said of the Idea is self-contradictory. But that can quite as well be retaliated, or rather in the Idea the retaliation is actually made. And this work, which is the work of reason, is certainly not so easy as that of the understanding. Understanding may demonstrate that the Idea is self-contradictory: because the subjective is subjective only and is always confronted by the objective, — because being is different from notion and therefore cannot be picked out of it, — because the finite is finite only, the exact antithesis of the infinite, and therefore not identical with it; and so on with every term of the description. The reverse of all this however is the doctrine of Logic. Logic shows that the subjective which is to be subjective only, the finite which would be finite only, the infinite which would be infinite only, and so on, have no truth, but contradict themselves, and pass over into their opposites. Hence this transition, and the unity in which the extremes are merged and become factors, each with a merely reflected existence, reveals itself as their truth.

The understanding, which addresses itself to deal with the Idea, commits a double misunderstanding. It takes *first* the extremes of the Idea (be they expressed as they will, so long as they are in their unity), not as they are understood when stamped with this concrete unity, but as if they remained abstractions outside of it. It no less mistakes the relation between them, even when it has been expressly stated. Thus, for example, it overlooks even the nature of the copula in the judgment, which affirms that the individual, or subject, is after all not individual, but universal. But, in the *second* place, the understanding believes *its* "reflection," — that the self-identical Idea contains

its own negative, or contains contradiction, — to be an external reflection which does not lie within the Idea itself. But the reflection is really no peculiar cleverness of the understanding. The Idea itself is the dialectic which for ever divides and distinguishes the self-identical from the differentiated, the subjective from the objective, the finite from the infinite, soul from body. Only on these terms is it an eternal creation, eternal vitality, and eternal spirit. But while it thus passes or rather translates itself into the abstract understanding, it for ever remains reason. The Idea is the dialectic which again makes this mass of understanding and diversity understand its finite nature and the pseudo-independence in its productions, and which brings the diversity back to unity. Since this double movement is not separate or distinct in time, nor indeed in any other way — otherwise it would be only a repetition of the abstract understanding — the Idea is the eternal vision of itself in the other, — notion which in its objectivity *has* carried out *itself*, — object which is inward design, essential subjectivity.

The different modes of apprehending the Idea as unity of ideal and real, of finite and infinite, of identity and difference, etc., are more or less formal. They designate some one stage of the *specific* notion. Only the notion itself, however, is free and the genuine universal: in the Idea, therefore, the specific character of the notion is only the notion itself, — an objectivity, viz., into which it, being the universal, continues itself, and in which it has only its own character, the total character. The Idea is the infinite judgment, of which the terms are severally the independent totality; and in which, as each grows to the fulness of its own nature, it has thereby at the same time passed into the other. None of the other specific notions exhibits this totality complete on both its sides as the notion itself and objectivity.

215. The Idea is essentially a process, because its identity is the absolute and free identity of the notion, only in so far as it is absolute negativity and for that reason dialectical. It is the round of movement, in which the notion, in the capacity of universality which is individuality, gives itself the character of ob-

jectivity and of the antithesis thereto; and this externality which has the notion for its substance, finds its way back to subjectivity through its immanent dialectic.

As the idea is (*a*) a process, it follows that such an expression for the Absolute as *unity* of thought and being, of finite and infinite, etc., is false; for unity expresses an abstract and merely quiescent identity. As the Idea is (*b*) subjectivity, it follows that the expression is equally false on another account. That unity of which it speaks expresses a merely virtual or underlying presence of the genuine unity. The infinite would thus seem to be merely *neutralised* by the finite, the subjective by the objective, thought by being. But in the negative unity of the Idea, the infinite overlaps and includes the finite, thought overlaps being, subjectivity overlaps objectivity. The unity of the Idea is thought, infinity, and subjectivity, and is in consequence to be essentially distinguished from the Idea as *substance*, just as this overlapping subjectivity, thought, or infinity is to be distinguished from the one-sided subjectivity, one-sided thought, one-sided infinity to which it descends in judging and defining.

The idea as a process runs through three stages in its development. The first form of the idea is Life: that is, the idea in the form of immediacy. The second form is that of mediation or differentiation; and this is the idea in the form of Knowledge, which appears under the double aspect of the Theoretical and Practical idea. The process of knowledge eventuates in the restoration of the unity enriched by difference. This gives the third form of the idea, the Absolute Idea: which last stage of the logical idea evinces itself to be at the same time the true first, and to have a being due to itself alone.

PHENOMENOLOGY OF THE SPIRIT

Freely translated from the German * *by*
JOSIAH ROYCE

THE CONTRITE CONSCIOUSNESS[1]

IN Scepticism Consciousness learns in truth, that it is divided against itself. And from this experience there is born a new Type of Consciousness, wherein are linked the two thoughts which Scepticism had kept asunder. The thoughtless self-ignorance of Scepticism must pass away; for in fact the two

* From Hegel's *System der Wissenschaft, Erster Theil: Die Phänomenologie des Geistes*, Würzburg, 1807.

[1] The *Phänomenologie des Geistes*, the first of Hegel's systematic works (1807), is intended as a novel sort of "Introduction to Philosophy." It depicts a series of "phases" or *Gestalten* of consciousness which lie between our natural "common sense" view of the real world, and what Hegel regards as the truly philosophical view of reality. These phases form a series, whose order Hegel conceives as necessary. Each stage or phase of insight into the truth of things is meanwhile illustrated in this book by examples derived from literature, from history, or from the general experience of mankind. These mere illustrations are freely chosen; and Hegel does not conceive that the special embodiment or clothing which his choice of the illustrations gives to each phase or stage of consciousness is part of the necessary development.

The "unhappy" or "contrite" consciousness (*das unglückliche Bewusstsein*) is a phase or stage of consciousness which is subjectively idealistic in its interpretation of reality, but which is abstract and dualistic in its view of its relations to truth. It is therefore concerned not with external nature, but with its own private ideals, and with a search for personal perfection. It is, in brief, what Professor William James might call a "variety of religious experience." This experience is here that of a lonely devotee, whose world consists of his search for inner spiritual perfection, together with the goal of this search, namely his far-off "changeless" or divine consciousness. Both the social and the more technically theological aspects of religion play no essential part in the phase of consciousness here in question. The illustrations are obviously derived from mediæval cloister life; but this part of the setting of the phase in question is accidental. Any lonely religious experience might present essentially the same features.

The union of theoretical opinions about the nature of truth, with practical and emotional interpretations of life, is characteristic of the *Phenomenology*. Any coherent plan of life embodies a theory of truth and of reality. Any view about the universe expresses itself in a way of life. Such is the general notion illustrated by the phases of consciousness which the *Phenomenology* portrays.

attitudes of Scepticism express One Consciousness. This new Type of Consciousness is therefore explicitly aware of its own doubleness. It regards itself on the one hand as the Deliverer, changeless and self-possessed; on the other hand it regards itself as the absolutely confounded and contrary; and it is the awareness of this its own contradiction. — In Stoicism the Self owns itself in the simplicity of freedom. In Scepticism it gives itself embodiment, makes naught of other embodied reality, but, in the very act of so doing, renders itself the rather twofold and is now parted in twain. Hereby the same duplication that was formerly shared between two individuals, the Lord and the Slave, has now entered into the nature of one individual. The differentiation of the Self, which is the essential Law of the Spirit, is already present, but not as constituting an organic unity, and the CONTRITE CONSCIOUSNESS is this awareness of the Self as the divided Nature, wherein is only conflict.

This Contrite and Broken Consciousness, just because the conflict of its Nature is known as belonging to one person, must forever, in each of its two forms, have the other also present to it. Whenever, in either form, it seems to have come to victory and unity, it finds no rest there, but is forthwith driven over to the other. Its true home-coming, its true reconciliation with itself, will, however, display to us the law of the Spirit, as he will appear when, having come to life, he has entered the world of his manifestation. For it already belongs to the Contrite Consciousness to be one undivided soul in the midst of its doubleness. It is in fact the very gazing of one Self into another; it is both these selves; it has no nature save in so far as it unites the two. But thus far it knows not yet this its own real essence; it has not entered into possession of this unity.

For the first then, the Contrite Consciousness is but the unwon unity of the two selves. To its view the two are not one, but are at war together. And accordingly it regards one of them, viz., the simple, the Changeless Consciousness, as the True Self. The other, the multiform and fickle, it regards as the False Self. The Contrite Consciousness finds these two as mutually estranged. For its own part, because it is the aware-

ness of this contradiction, it takes sides with the Changeless Consciousness, and calls itself the False Self. But since it is aware of the Changeless, *i. e.* of the True Self, its task must be one of self-deliverance, that is, the task of delivering itself from the unreality. For on the one hand it knows itself only as the fickle; and the changeless is far remote from it. And yet the Contrite Consciousness is in its genuine selfhood one with the simple and Changeless Consciousness; for therein lies its own true Self. But yet again it knows that it is not in possession of this true self. So long as the Contrite Consciousness assigns to the two selves this position, they cannot remain indifferent to each other; or, in other words, the Contrite Consciousness cannot itself be indifferent to the Changeless For the Contrite Consciousness is, as a fact, of both kinds, and knows the relation of the changeless to the fickle as a relation of truth to falsehood. The falsehood must be turned to naught; but since the Contrite Consciousness finds both the false and the true alike necessary to it, and contradictory, there remains to it only the contradictory movement, wherein neither of the opposed elements can find repose in going over to its opponent but must create itself anew in the opponent's very bosom.

To win, then, in this strife against the adversary, is rather to be vanquished. To attain one goal, is rather to lose it in its opposite. The whole life, whatever it be, whatever it do, is aware only of the pain of this being and doing. For this Consciousness has no object besides its opposite, the true Self, and its own nothingness. In aspiration it strives hence towards the Changeless. But this aspiration is itself the Contrite Consciousness, and contains forthwith the knowledge of the opposite, namely of its own individuality. The Changeless, when it enters consciousness, is sicklied o'er with individuality, is present therewith; instead of being lost in the consciousness of the Changeless, individuality arises ever afresh therein.

But one thing the Contrite Consciousness thus learns, namely that individuality is made manifest in the Changeless, and that the Changeless is made manifest in individuality. It finds that in general individuality belongs to the changeless true Self, and

that in fact its own individuality also belongs thereto. For the outcome of this process is precisely the unity of this twofold consciousness. This unity, then, comes to light, but for the first only as an unity wherein the diversity of the two aspects plays the chief part. For the Contrite Consciousness there thus result three ways in which individuality and the Changeless are linked. First, it rediscovers itself as again banished into its opposition to the Changeless Self; and it is cast back to the beginning of the strife, which latter still remains the element of the entire relationship. In the second place, the Contrite Consciousness learns that individuality belongs to the very essence of the Changeless, is the incarnation of the Changeless; and the latter hereupon assumes the burden of this whole range of phenomena. In the third place, the Contrite Consciousness discovers itself to be the individual who dwells in the Changeless. In the first stage the Changeless appears to consciousness only as the remote Self, that condemns individuality. In passing through the second stage, consciousness learns that the Changeless is as much an incarnate individual as it is itself; and thus, in the third stage, consciousness reaches the grade of the Spirit, rejoices to find itself in the Spirit, and becomes aware that its individuality is reconciled with the Universal.

What is here set forth as the character and relationship of the Changeless has appeared as the experience that the divided consciousness obtains in its woe. This experience is to be sure not its own one-sided process; for it is itself the Changeless Consciousness, and the latter is also an individual consciousness; so that the process is all the while a process in the Changeless Consciousness, belonging to the latter quite as much as to the other. For the Changeless Consciousness passes through the three stages, being first the changeless as in general opposed to the individual, then becoming an individual over against another individual, and finally being united with the latter. But this observation, in so far as it is made from our own point of view as observers, is here premature; for thus far we have come to know the Changeless only in so far as consciousness has defined it. Not, as yet, the true Changeless, but the Changeless

as modified by the duality of consciousness, has come to our sight; and so we know not how the developed and self-possessed Changeless will behave. What has resulted from the foregoing is only this, that the mentioned characteristics appear, to the consciousness now under consideration, as belonging to the Changeless.

Consequently the Changeless Consciousness itself also preserves even in its incarnate form the character and principle of separation and isolation as against the individual consciousness. From the latter's point of view, the fact that the Changeless takes on the form of individuality appears as something which somehow *comes to pass*. The opposition to the Changeless is something, moreover, which the individual consciousness merely finds as a fact. The relation seems to it merely a result of its natural constitution. As for the final reconciliation, the individual consciousness looks upon this as in part its own deed, the result of its own individuality; but it also regards a part of the unity as due, both in origin and in existence, to the Changeless. The element of opposition thus remains even in the unity. In fact, in taking on its incarnate form, the Changeless has not only retained but actually confirmed its character of remoteness. For although, in assuming a developed and incarnate individuality, it seems on the one hand to have approached the individual, still, on the other hand, it now stands over against him as an opaque fact of sense, with all the stubbornness of the actual about it. The hope that the individual may become one with the Changeless must remain but hope, empty and distant; for between hope and fruition stand now the fatal chance and the lifeless indifference which have resulted from that very incarnation wherein lies the foundation of the hope. Because the Changeless has thus entered the world of facts, has taken on the garments of actuality, it follows necessarily that in the world of time it has vanished, that in space it is far away, and forever far remains.

If at the outset the mere notion of the divided consciousness demanded that it should undertake the destruction of its individuality, and the growth into the Changeless, the present

result defines the undertaking thus: That the individual should leave off its relation with the formless ideal, and should come only into relations with the Changeless as incarnate. For it is now the fact of the unity of the individual and the Changeless which has become the truth and the object for consciousness, as before, in the mere notion, only the abstract and disembodied Changeless was the essential object; and consciousness now finds the total separation of the notion as the relation which is to be forgotten. The thing which has now to be reduced to unity is the still external relation to the embodied Ideal, in so far as the latter is a foreign actuality.

The process whereby the unreal Self seeks to reach this unity is once more threefold, since it will be found to have a threefold relation to its incarnate but remote Ideal. In the first place it will appear as the Devout Consciousness; in the second place, as an individual, whose relation to the actuality will be one of aspiration and of service; in the third place it will reach the consciousness of self-possession. We must now follow these three states of being, to see how they are involved in the general relation, and are determined thereby.

Taking the first state, that of the Devout Consciousness, one finds indeed that the incarnate Changeless, as it appears to this consciousness, seems to be present in all the completeness of its being. But as a fact the fashion of the completed being of the Changeless has not yet been developed. Should this completed being be revealed to consciousness, the revelation would be, as it were, rather the deed of the Ideal than the work of the Devout Consciousness; and thus the revelation would come from one side alone, would be no full and genuine revelation, but would remain burdened with incompleteness and with duality.

Although the Contrite Consciousness still lacks the presence of its Ideal, it is nevertheless as we see [*also*] beyond the stage of pure thought, whether such thought were the mere abstract thinking of Stoicism, which forgets all individuality, or the merely restless thinking of Scepticism, which in fact embodies individuality in its ignorant contradictions and its ceaseless unrepose. Both of these stages the Contrite Consciousness has

transcended. It begins the synthesis of pure thought and of individuality and persists therein. But it has not yet risen to the thought which is aware of the reconciliation of the conscious individual with the demands of pure thought. The Contrite Consciousness stands between the two extremes, at the place where pure thought and the individual consciousness meet. It is in fact itself this meeting place; it is the unity of pure thought and individuality. It even knows that pure thought, yes the Changeless itself, is essentially individual. But what it does not know is that this its object, the Changeless, which it regards as having necessarily assumed an incarnate individuality, is identical with its own self, with the very individual as he is in consciousness.

Its attitude then, in this first form, in which it appears as the Devout Consciousness, is not one in which it explicitly thinks about its object. It is implicitly indeed the consciousness of a thinking individual, and its object also is a thinking individual. But the relation between these two is still one that defies pure thought. Consciousness accordingly as it were makes but a feint at thinking, and takes the form of Adoration. Such thought as it has remains the mere formless tinkling of an altar bell, or the wreathing of warm incense smoke — a thinking in music, such as never reaches an organized notion, wherein alone an inner objectivity could be attained. This limitless and devout inner Feeling finds indeed its object, but as something uncomprehended, and so as a stranger. Thus comes to pass the inward activity of the devout soul, which is indeed self-conscious, but only in so far as it possesses the mere feeling of its sorrowful disharmony. This activity is one of ceaseless longing. It possesses the assurance that its true Self is just such a pure soul, — pure thought in fact, taking on the form of individuality, — and that this Being, who is the object of the devotion, since he possesses the thought of his own individuality, recognizes and approves the worshipper. But at the same time this Being is the unapproachable and remote. As you seize hold upon him he escapes, or rather he has already gone away. He has already gone away; for he is the Ideal giving himself in thought the form

of an individual and therefore consciousness gets without hindrance its self-fulfilment in him, — gets self-fulfilment, but only to learn that it is the very opposite of this Ideal. Instead of seizing hold on the true Self, its mere feeling is all. It sinks back into itself. Unable at the moment of union to escape finding itself as the very opposite of the ideal, it has actually seized hold upon its own untruthfulness, not upon the truth. In the true Self it has sought to find its own fulfilment; but *its own* means only its isolated individual reality. For the same reason it cannot get hold upon the true Self in so far as he is at once an individual and a reality. Where one seeks him, the true Self is not to be found; for by definition he is the remote Self, and so is to be found nowhere. To seek him in so far as he is an individual is not to look for his universal, his ideal individuality, nor for his presence as the law of life,[1] but merely to seek him as an individual thing, as a fact amongst facts,[2] as something that sense could touch unhindered. But as such an object the Ideal exists only as a lost object. What consciousness finds is thus only the sepulchre of its true life. But this sepulchre is now the actuality, and, moreover, one that by its nature forbids any abiding possession; and the presence of this tomb means only the strife of a search that must be fruitless. But consciousness thus learns that there is no real sepulchre which can contain its true Lord, the Changeless. As Lord who has been taken away he is not the true Lord. The Changeless will no longer be looked for here below, or grasped after as the vanished one. For hereby consciousness learns to look for individuality as a genuine and universal ideal.

In the next place then, the return of the soul to itself is to be defined as its knowledge that in its own individuality it has genuine being. It is the pure heart, which potentially, or from our point of view, has discovered the secret of self-satisfaction. For although in feeling it is sundered from its Ideal, still this feeling is in essence a feeling of self-possession. What has been felt is the Ideal as expressed in terms of pure feeling; and this

[1] *Begriff*, here paraphrased to suit special context.
[2] *Wirkliches*, here used as equal to *Seyendes*.

Ideal is its own very self. It issues from the process then as the feeling of self-possession, and so as an actual and independent being. By this return to itself it has, from our point of view, passed to its second relationship, that of aspiration and service. And in this second stage consciousness confirms itself in the assurance of self-possession (an assurance which we now see it to have attained), by overcoming and feeding upon the true Self, which, in so far as it was an independent thing, was estranged. From the point of view of the Contrite Consciousness, however, all that yet appears is the aspiration and the service. It knows not yet that in finding these it has the assurance of self-possession as the basis of its existence, and that its feeling of the true Self is a self-possessed feeling. Not knowing this, it has still ever within it the fragmentary assurance of itself. Therefore any confirmation which it should receive from toiling and from communion would still be a fragmentary confirmation. Yes, itself it must destroy even this confirmation also, finding therein indeed a confirmation of something, but only of its isolation and its separation.

The actual world wherein the aspiration and the service find their calling, seems to this consciousness no longer an essentially vain world, that is only to be destroyed and consumed, but rather, like the consciousness itself, a world broken in twain, which is only in one aspect vain, while in another aspect it is a sanctified world, wherein the Changeless is incarnate. For the Changeless has retained the nature of individuality, and being, as changeless, an Universal, its individuality has in general the significance of all actuality.

If consciousness were now aware of its independent personality, and if it regarded the actual world as essentially vain, it would get the feeling of its independence in its service and in its communion, since it would be aware of itself as the victory that overcometh the world. But because the world is regarded by it as an embodiment of the ideal, it may not overcome by its own power. It does indeed attain to conquest over the world and to a feasting thereon, but to this end it is essential that the Changeless should itself give its own body as the food. And in this re-

spect consciousness appears as a mere matter of fact having no part in the deed; but it also appears as inwardly broken in twain, and this doubleness, its division into a Self that stands in a genuine relation to itself and to reality, and a Self whose life is hidden and undeveloped, is now apparent in the contrast between its service and its communion. As in actual relation to the world, consciousness is a doer of works, and knows itself as such, and this side belongs to its individuality. But it has also its undeveloped reality. This is hidden in the true Self, and consists in the talents and virtues of the individual. They are a foreign gift. The Changeless grants them to consciousness that they may be used.

In doing its good works, consciousness is, for the first, parted into a relationship between two extremes. On one side stands the toiler in the world here below; on the other side stands the passive actuality in whose midst he toils. Both are related to each other; both however are also referred to the Changeless as their source, and have their being hidden therein. From each side, then, there is but a shadowy image let free to enter into play with the other. That term of the relationship which is called the Actuality is overcome by the other term, the doer of good works. But the former term, for its part, can only be overcome because its own Changeless Nature overcomes it, divides itself in twain, and gives over the divided part to be the material for deeds. The power that does the deeds appears as the might that overcometh the world. But for this very reason the present Consciousness, which regards its true Self as something foreign, must regard this might also, whereby it works, as a thing remote from itself. Instead of winning self-possession from its good works, and becoming thereby sure of itself, Consciousness relates all this activity back again to the other member of the relationship, which thus proves itself to be the pure Universal, the Absolute Might, whence flows every form of activity, and wherein lies the truth both of the mutually dissolving terms, as they first appeared, and of their interchanging of relationship.

The Changeless Consciousness sacrifices its body, and gives it over to be used. On the other hand the individual conscious-

ness renders thanks for the gift, forbids itself the satisfaction of a sense of independence, and refers all its doings to the Changeless. In these two aspects of the mutual sacrifice made by both the members of the relation, Consciousness does indeed win the sense of its own oneness with the Changeless. But at the same time this oneness is still beladen with the separation, and is divided in itself. The opposition between the Individual and the Universal comes afresh to sight. For Consciousness only *seems* to resign selfish satisfaction. As a fact it gets selfish satisfaction. For it still remains longing, activity, and fulfilment. As Consciousness it has longed, it has acted, it has been filled. In giving thanks, in acknowledging the Other as the true Self, in making naught of itself, it has still been doing its own deed. This deed has repaid the deed of the Other, has rendered a price for the kindly sacrifice. If the Other has offered its own image as a gift, consciousness, for its part, has made its return in thanks, and has herein done actually more than the Other, since it has offered its All, namely, its good works, while the Other has but parted with its mere image. The entire process returns then back to the side of the individual, and does so not merely in respect of the actual aspiration, service, and communion, but even in respect of the very act of giving thanks, an act that was to attain the opposite result. In giving thanks consciousness is aware of itself as this individual, and refuses to be deceived by its own seeming resignation. What has resulted is only the twofold reference of the process to its two terms; and the result is the renewed division into the conflicting consciousness of the Changeless on the one hand, and, on the other hand, the consciousness of the opposed will, activity, and fulfilment, and even of the very resignation itself; for these constitute in general the separated individuality.

Herewith begins the third phase of the process of this consciousness, which follows from the second as a consciousness that in truth, by will and by deed, has proved its independence. In the first phase it was the mere notion of a live Consciousness, an inner life that had not yet attained actuality by service and communion. The second phase was the attainment, as outer

activity and communion. Returned from this outer activity, consciousness has now reached the stage where it has experienced its own actuality and power, where it knows in truth that it is fully self-possessed. But now the enemy comes to light in his most genuine form. In the struggle of the inner life the individual had existence only as an abstraction, as "passed in music out of sight." In service and in communion, as the realization of this unreal selfhood, it is able in its immediate experience to forget itself, and its consciousness of its own merit in this actual service is turned to humiliation through the act of thankful acknowledgment. But this humiliation is in truth a return of consciousness to itself, and to itself as the possessor of its own actuality.

This third relationship, wherein this genuine actuality is to be one term, is that relationship of the actuality to the Universal, wherein the actuality is nevertheless to appear as an Unreality; and the process of this relationship is still to be considered.

In the first place, as regards the conflicting relationship of consciousness, wherein its own reality appears to it as an obvious nothingness, the result is that its actual work seems to it a doing of naught, and its satisfaction is but a sense of its misery. Work and satisfaction thus lose all universal content and meaning; for if they had any, then they would involve a full self-possession. Both of them sink to the level of individuality; and consciousness, turning upon this individuality, devotes itself to making naught of it. Consciousness of an actual individual is a consciousness of the mere animal functions of the body. These latter are no longer naïvely carried out as something that is altogether of no moment, and that can have no weight or significance for the spirit; on the contrary, they become the object of earnest concern, and are of the very weightiest moment. The enemy arises anew in his defeat. Consciousness holds him in eye, yet frees itself not from him, but rather dwells upon the sight, and sees constantly its own uncleanness. And because, at the same time, this object of its striving, instead of being significant, is of the most contemptible, instead of being an universal is of the most individual, we therefore behold at this stage

only a brooding, unhappy and miserable personality, limited solely to himself and his little deeds.

But all the while this person links both to the sense of his misery and to the worthlessness of his deeds, the consciousness that he is one with the Ideal. For the attempted direct destruction of individuality is determined by the thought of the Ideal, and takes place for the sake of the Ideal. This relation of dependence constitutes the essence of the negative onslaught upon individuality. But the dependence is as such potentially positive, and will bring consciousness to a sense of its own unity.

This determinate dependence is the rational Tie, whereby the individual who at first holds fast by his opposition to the true Self, is still linked to the other term, yet only by means of a third element. This mediating element reveals the true Self to the false Self, which in its turn knows that in the eyes of the true Self it has existence only by virtue of the dependence. It is the dependence then which reveals the two terms of the relationship to one another, and which, as Mediator, takes the part of each one of the terms in presence of the other. The Mediator too is a conscious Being, for its work is the production of this consciousness as such. What it brings to pass is that overcoming of individuality which consciousness is undertaking.

Through the Mediator, then, Consciousness frees itself from regarding its good works and its communion as due to its private merit. It rejects all claim to independence of will. It casts upon the Mediator, the intercessor, the burden of its self-will, its freedom of choice, and its sins. The Mediator, dwelling in the immediate presence of the Ideal, gives counsel as to what is to be done. And what is done, being in submission to the will of another, is no longer one's own act. What is still left to the untrue Self is the objective result of the deed, the fruit of the toil, the satisfaction. But this too it refuses to accept as its own, and resigns not only its self-will, but the actual outcome of its service and its satisfaction. It resigns this outcome, first, because the latter would involve an attainment of self-conscious truth and independence (and this consciousness lives in the thought and the speech of a strange and incomprehensible mystery).

Secondly, moreover, it resigns the outcome in so far as the latter consists of worldly goods, and so it abandons, in a measure, whatever it has earned by its labor. Thirdly, it resigns all the satisfaction which has fallen to its lot, forbidding itself such satisfaction through fasting and through penance.

By these characteristics, by the surrender of self-will, of property, and of satisfaction, and by the further and positive characteristic of its undertaking of a mysterious task, consciousness does in truth free itself completely from any sense of inner or outer freedom, from any trust in the reality of its independence. It is sure that it has verily surrendered its Ego, and has reduced its natural self-consciousness to a mere thing, to a fact amongst facts. Only by such a genuine self-surrender could consciousness prove its own resignation. For only thus does there vanish the deceit that lies in the inner offering of thanks with the heart, with the sentiments, with the lips. Such offering does indeed strip from the individual all independent might, and ascribes all the glory to the heavenly Giver. But the individual even when thus stripped, retains his outer self-will, for he abandons not his possessions; and he retains his inner self-will, for he is aware that it is he who undertakes this self-sacrifice, and who has in himself the virtue involved in such an undertaking, — a virtue which he has not exchanged for the mysterious grace that cometh from above.

But in the genuine resignation, when once it has come to pass, consciousness, in laying aside the burden of its own deeds, has also, in effect, laid aside the burden of its grief. Yet that this laying aside has already, in effect, taken place, is due to the deed of the other member of the Tie, namely to the essential Self. The sacrifice of the unreal Self was made not by its own one-sided act, but involved the working of the Other's grace. For the resignation of self-will is only in part negative, and on the other hand involves in its very notion, or in its beginning, the positive transformation of the will, and, in particular, its transformation from an individual into an universal will. Consciousness finds this positive meaning of the denial of self-will to consist in the will of the Changeless, as this will is done, not

by consciousness itself, but through the counsel of the Mediator. Consciousness becomes aware, then, that its will is universal and essential, but it does not regard itself as identical with this essential nature. Self-resignation is not seen to be in its very notion identical with the positive work of the universal will. In the same way the abandonment of possession and of satisfaction has only the same negative significance, and the universal that thus comes in sight does not appear to consciousness as its own deed. The unity of truth and of self-possession implied in the notion of this activity, an unity which consciousness accordingly regards as its essence and its reality, is not recognized as implied in this very notion. Nor is the unity recognized by consciousness as its own self-created and immediately possessed object. Rather does consciousness only hear, spoken by the mediator's voice, the still fragile assurance that its own grief is, in the yet hidden truth of the matter, the very reverse, namely the bliss of an activity which rejoices in its tasks, that its own miserable deeds are, in the same hidden truth, the perfect work. And the real meaning of this assurance is that only what is done by an individual is or can be [*ueberhaupt*] a deed. But for consciousness both activity and its own actual deeds remain miserable. Its satisfaction is its sorrow, and the freedom from this sorrow, in a positive joy, it looks for in another world. But this other world, where its activity and its being are to become, even while they remain its own, real activity and being, — what is this world but the image of REASON, — of the assurance of Consciousness that in its individuality it is and possesses all Reality?

ARTHUR SCHOPENHAUER
(1788–1860)

THE WORLD AS WILL AND IDEA

Translated from the German by*
R. B. HALDANE and J. KEMP

BOOK I. THE WORLD AS IDEA

§ 1. "THE world is my idea:" — this is a truth which holds good for everything that lives and knows, though man alone can bring it into reflective and abstract consciousness. If he really does this, he has attained to philosophical wisdom. It then becomes clear and certain to him that what he knows is not a sun and an earth, but only an eye that sees a sun, a hand that feels an earth; that the world which surrounds him is there only as idea, *i. e.*, only in relation to something else, the consciousness, which is himself. If any truth can be asserted *a priori*, it is this: for it is the expression of the most general form of all possible and thinkable experience: a form which is more general than time, or space, or causality, for they all presuppose it; and each of these, which we have seen to be just so many modes of the principle of sufficient reason, is valid only for a particular class of ideas; whereas the antithesis of object and subject is the common form of all these classes, is that form under which alone any idea of whatever kind it may be, abstract or intuitive, pure or empirical, is possible and thinkable. No truth therefore is more certain, more independent of all others, and less in need of proof than this, that all that exists for knowledge, and therefore this whole world, is only object in relation to subject, perception of a perceiver, in a word, idea. This is obviously true of the past and the future, as well as of the present, of what is farthest off, as of what is near; for it is true of time and space

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themselves, in which alone these distinctions arise. All that in any way belongs or can belong to the world is inevitably thus conditioned through the subject, and exists only for the subject. The world is idea.

This truth is by no means new. It was implicitly involved in the sceptical reflections from which Descartes started. Berkeley, however, was the first who distinctly enunciated it, and by this he has rendered a permanent service to philosophy, even though the rest of his teaching should not endure. Kant's primary mistake was the neglect of this principle, as is shown in the appendix. How early again this truth was recognised by the wise men of India, appearing indeed as the fundamental tenet of the Vedânta philosophy ascribed to Vyasa, is pointed out by Sir William Jones in the last of his essays: On the Philosophy of the Asiatics ("Asiatic Researches," vol. iv, p. 164), where he says, "The fundamental tenet of the Vedanta school consisted not in denying the existence of matter, that is, of solidity, impenetrability, and extended figure (to deny which would be lunacy), but in correcting the popular notion of it, and in contending that it has no essence independent of mental perception; that existence and perceptibility are convertible terms." These words adequately express the compatibility of empirical reality and transcendental ideality.

In this first book, then, we consider the world only from this side, only so far as it is idea. The inward reluctance with which any one accepts the world as merely his idea, warns him that this view of it, however true it may be, is nevertheless one-sided, adopted in consequence of some arbitrary abstraction. And yet it is a conception from which he can never free himself. The defectiveness of this view will be corrected in the next book by means of a truth which is not so immediately certain as that from which we start here; a truth at which we can arrive only by deeper research and more severe abstraction, by the separation of what is different and the union of what is identical. This truth, which must be very serious and impressive if not awful to every one, is that a man can also say and must say, "The world is my will."

In this book, however, we must consider separately that aspect of the world from which we start, its aspect as knowable, and therefore, in the meantime, we must, without reserve, regard all presented objects, even our own bodies (as we shall presently show more fully), merely as ideas, and call them merely ideas. By so doing we always abstract from will (as we hope to make clear to every one further on), which by itself constitutes the other aspect of the world. For as the world is in one aspect entirely *idea*, so in another it is entirely *will*. A reality which is neither of these two, but an object in itself (into which the thing in itself has unfortunately dwindled in the hands of Kant), is the phantom of a dream, and its acceptance is an *ignis fatuus* in philosophy.

§ 2. That which knows all things and is known by none is the subject. Thus it is the supporter of the world, that condition of all phenomena, of all objects which is always presupposed throughout experience; for all that exists, exists only for the subject. Every one finds himself to be subject, yet only in so far as he knows, not in so far as he is an object of knowledge. But his body is object, and therefore from this point of view we call it idea. For the body is an object among objects and is conditioned by the laws of objects, although it is an immediate object. Like all objects of perception, it lies within the universal forms of knowledge, time and space, which are the conditions of multiplicity. The subject, on the contrary, which is always the knower, never the known, does not come under these forms, but is presupposed by them; it has therefore neither multiplicity nor its opposite unity. We never know it, but it is always the knower wherever there is knowledge.

So then the world as idea, the only aspect in which we consider it at present, has two fundamental, necessary, and inseparable halves. The one half is the object, the forms of which are space and time, and through these multiplicity. The other half is the subject, which is not in space and time, for it is present, entire and undivided, in every percipient being. So that any one percipient being, with the object, constitutes the whole world as idea just as fully as the existing millions could do; but

if this one were to disappear, then the whole world as idea would cease to be. These halves are therefore inseparable even for thought, for each of the two has meaning and existence only through and for the other, each appears with the other and vanishes with it. They limit each other immediately; where the object begins the subject ends. The universality of this limitation is shown by the fact that the essential and hence universal forms of all objects, space, time, and causality, may, without knowledge of the object, be discovered and fully known from a consideration of the subject, *i. e.*, in Kantian language, they lie *a priori* in our consciousness. That he discovered this is one of Kant's principal merits, and it is a great one. I however go beyond this, and maintain that the principle of sufficient reason is the general expression for all these forms of the object of which we are *a priori* conscious; and that therefore all that we know purely *a priori*, is merely the content of that principle and what follows from it; in it all our certain *a priori* knowledge is expressed. In my essay on the principle of sufficient reason I have shown in detail how every possible object comes under it; that is, stands in a necessary relation to other objects, on the one side as determined, on the other side as determining: this is of such wide application, that the whole existence of all objects, so far as they are objects, ideas and nothing more, may be entirely traced to this their necessary relation to each other, rests only in it, is in fact merely relative; but of this more presently. I have further shown, that the necessary relation which the principle of sufficient reason expresses generally, appears in other forms corresponding to the classes into which objects are divided, according to their possibility; and again that by these forms the proper division of the classes is tested. I take it for granted that what I said in this earlier essay is known and present to the reader, for if it had not been already said it would necessarily find its place here.

§ 5. It is needful to guard against the grave error of supposing that because perception arises through the knowledge of causality, the relation of subject and object is that of cause and effect. For this relation subsists only between the immediate

object and objects known indirectly, thus always between objects alone. It is this false supposition that has given rise to the foolish controversy about the reality of the outer world; a controversy in which dogmatism and scepticism oppose each other, and the former appears, now as realism, now as idealism. Realism treats the object as cause, and the subject as its effect. The idealism of Fichte reduces the object to the effect of the subject. Since however, and this cannot be too much emphasised, there is absolutely no relation according to the principle of sufficient reason between subject and object, neither of these views could be proved, and therefore scepticism attacked them both with success. Now, just as the law of causality precedes perception and experience as their condition, and therefore cannot (as Hume thought) be derived from them, so object and subject precede all knowledge, and hence the principle of sufficient reason in general, as its first condition; for this principle is merely the form of all objects, the whole nature and possibility of their existence as phenomena: but the object always presupposes the subject; and therefore between these two there can be no relation of reason and consequent. My essay* on the principle of sufficient reason accomplishes just this: it explains the content of that principle as the essential form of every object — that is to say, as the universal nature of all objective existence, as something which pertains to the object as such; but the object as such always presupposes the subject as its necessary correlative; and therefore the subject remains always outside the province in which the principle of sufficient reason is valid. The controversy as to the reality of the outer world rests upon this false extension of the validity of the principle of sufficient reason to the subject also, and starting with this mistake it can never understand itself. On the one side realistic dogmatism, looking upon the idea as the effect of the object, desires to separate these two, idea and object, which are really one, and to assume a cause

* *Ueber die vierfache Wurzel des Satzes vom Zureichenden Grunde.* Rudolst. 1813. English, *Two Essays by Schopenhauer:* I. On the Fourfold Root of the Principle of Sufficient Reason; II. On the Will of Nature. A literal translation, London, 1889.

quite different from the idea, an object in itself, independent of the subject, a thing which is quite inconceivable; for even as object it presupposes subject, and so remains its idea. Opposed to this doctrine is scepticism, which makes the same false presupposition that in the idea we have only the effect, never the cause, therefore never real being; that we always know merely the action of the object. But this object, it supposes, may perhaps have no resemblance whatever to its effect, may indeed have been quite erroneously received as the cause, for the law of causality is first to be gathered from experience, and the reality of experience is then made to rest upon it. Thus both of these views are open to the correction, firstly, that object and idea are the same; secondly, that the true being of the object of perception is its action, that the reality of the thing consists in this, and the demand for an existence of the object outside the idea of the subject, and also for an essence of the actual thing different from its action, has absolutely no meaning, and is contradiction: and that the knowledge of the nature of the effect of any perceived object, exhausts such an object itself, so far as it is object, *i. e.*, idea, for beyond this there is nothing more to be known. So far then, the perceived world in space and time, which makes itself known as causation alone, is entirely real, and is throughout simply what it appears to be, and it appears wholly and without reserve as idea, bound together according to the law of causality. This is its empirical reality. On the other hand, all causality is in the understanding alone, and for the understanding. The whole actual, that is, active world is determined as such through the understanding, and apart from it is nothing. This, however, is not the only reason for altogether denying such a reality of the outer world as is taught by the dogmatist, who explains its reality as its independence of the subject. We also deny it, because no object apart from a subject can be conceived without contradiction. The whole world of objects is and remains idea, and therefore wholly and for ever determined by the subject; that is to say, it has transcendental ideality. But it is not therefore illusion or mere appearance; it presents itself as that which it is, idea, and indeed as a series of ideas

of which the common bond is the principle of sufficient reason It is according to its inmost meaning quite comprehensible to the healthy understanding, and speaks a language quite intelligible to it. To dispute about its reality can only occur to a mind perverted by over-subtilty, and such discussion always arises from a false application of the principle of sufficient reason, which binds all ideas together of whatever kind they may be, but by no means connects them with the subject, nor yet with a something which is neither subject nor object, but only the ground of the object; an absurdity, for only objects can be and always are the ground of objects. If we examine more closely the source of this question as to the reality of the outer world, we find that besides the false application of the principle of sufficient reason generally to what lies beyond its province, a special confusion of its forms is also involved; for that form which it has only in reference to concepts or abstract ideas, is applied to perceived ideas, real objects; and a ground of knowing is demanded of objects, whereas they can have nothing but a ground of being. Among the abstract ideas, the concepts united in the judgment, the principle of sufficient reason appears in such a way that each of these has its worth, its validity, and its whole existence, here called *truth*, simply and solely through the relation of the judgment to something outside of it, its ground of knowledge, to which there must consequently always be a return. Among real objects, ideas of perception, on the other hand, the principle of sufficient reason appears not as the principle of the ground of *knowing*, but of *being*, as the law of causality: every real object has paid its debt to it, inasmuch as it has come to be, *i. e.*, has appeared as the effect of a cause. The demand for a ground of knowing has therefore here no application and no meaning, but belongs to quite another class of things. Thus the world of perception raises in the observer no question or doubt so long as he remains in contact with it: there is here neither error nor truth, for these are confined to the province of the abstract — the province of reflection. But here the world lies open for sense and understanding; presents itself with naïve truth as that which it really is — ideas of per-

ception which develop themselves according to the law of causality.

So far as we have considered the question of the reality of the outer world, it arises from a confusion which amounts even to a misunderstanding of reason itself, and therefore thus far, the question could be answered only by explaining its meaning. After examination of the whole nature of the principle of sufficient reason, of the relation of subject and object, and the special conditions of sense perception, the question itself disappeared because it had no longer any meaning. There is, however, one other possible origin of this question, quite different from the purely speculative one which we have considered, a specially empirical origin, though the question is always raised from a speculative point of view, and in this form it has a much more comprehensible meaning than it had in the first. We have dreams; may not our whole life be a dream? or more exactly: is there a sure criterion of the distinction between dreams and reality? between phantasms and real objects? The assertion that what is dreamt is less vivid and distinct than what we actually perceive is not to the point, because no one has ever been able to make a fair comparison of the two; for we can only compare the recollection of a dream with the present reality. Kant answers the question thus: "The connection of ideas among themselves, according to the law of causality, constitutes the difference between real life and dreams." But in dreams, as well as in real life, everything is connected individually at any rate, in accordance with the principle of sufficient reason in all its forms, and this connection is broken only between life and dreams, or between one dream and another. Kant's answer therefore could only run thus: — the *long* dream (life) has throughout complete connection according to the principle of sufficient reason; it has not this connection, however, with *short* dreams, although each of these has in itself the same connection: the bridge is therefore broken between the former and the latter, and on this account we distinguish them.

But to institute an enquiry according to this criterion, as to whether something was dreamt or seen, would always be diffi-

cult and often impossible. For we are by no means in a position to trace link by link the causal connection between any experienced event and the present moment, but we do not on that account explain it as dreamt. Therefore in real life we do not commonly employ that method of distinguishing between dreams and reality. The only sure criterion by which to distinguish them is in fact the entirely empirical one of awaking, through which at any rate the causal connection between dreamed events and those of waking life, is distinctly and sensibly broken off. This is strongly supported by the remark of Hobbes in the second chapter of Leviathan, that we easily mistake dreams for reality if we have unintentionally fallen asleep without taking off our clothes, and much more so when it also happens that some undertaking or design fills all our thoughts, and occupies our dreams as well as our waking moments. We then observe the awaking just as little as the falling asleep, dream and reality run together and become confounded. In such a case there is nothing for it but the application of Kant's criterion; but if, as often happens, we fail to establish by means of this criterion, either the existence of causal connection with the present, or the absence of such connection, then it must for ever remain uncertain whether an event was dreamt or really happened. Here, in fact, the intimate relationship between life and dreams is brought out very clearly, and we need not be ashamed to confess it, as it has been recognised and spoken of by many great men. The Vedas and Puranas have no better simile than a dream for the whole knowledge of the actual world, which they call the web of Mâyâ, and they use none more frequently. Plato often says that men live only in a dream; the philosopher alone strives to awake himself. Pindar says (ii. η. 135): σκιᾶς ὄναρ ἄνθρωπος (umbrae somnium homo), and Sophocles:—

> Ὁρῶ γὰρ ἡμᾶς οὐδὲν ὄντας ἄλλο, πλὴν
> Εἴδωλ᾽ ὅσοιπερ ζῶμεν, ἢ κούφην σκιάν. — Ajax, 125.

(Nos enim, quicunque vivimus, nihil aliud esse comperio quam simulacra et levem umbram.) Beside which most worthily stands Shakespeare:—

> "We are such stuff
> As dreams are made on, and our little life
> Is rounded with a sleep." — *Tempest*, Act IV. Sc. i.

Lastly, Calderon was so deeply impressed with this view of life that he sought to embody it in a kind of metaphysical drama — "Life a Dream."

After these numerous quotations from the poets, perhaps I also may be allowed to express myself by a metaphor. Life and dreams are leaves of the same book. The systematic reading of this book is real life, but when the reading hours (that is, the day) are over, we often continue idly to turn over the leaves, and read a page here and there without method or connection: often one we have read before, sometimes one that is new to us, but always in the same book. Such an isolated page is indeed out of connection with the systematic study of the book, but it does not seem so very different when we remember that the whole continuous perusal begins and ends just as abruptly, and may therefore be regarded as merely a larger single page.

Thus although individual dreams are distinguished from real life by the fact that they do not fit into that continuity which runs through the whole of experience, and the act of awaking brings this into consciousness, yet that very continuity of experience belongs to real life as its form, and the dream on its part can point to a similar continuity in itself. If, therefore, we consider the question from a point of view external to both, there is no distinct difference in their nature, and we are forced to concede to the poets that life is a long dream.

Let us turn back now from this quite independent empirical origin of the question of the reality of the outer world, to its speculative origin. We found that this consisted, first, in the false application of the principle of sufficient reason to the relation of subject and object; and secondly, in the confusion of its forms, inasmuch as the principle of sufficient reason of knowing was extended to a province in which the principle of sufficient reason of being is valid. But the question could hardly have occupied philosophers so constantly if it were entirely devoid of all real content, and if some true thought and meaning did

not lie at its heart as its real source. Accordingly, we must assume that when the element of truth that lies at the bottom of the question first came into reflection and sought its expression, it became involved in these confused and meaningless forms and problems. This at least is my opinion, and I think that the true expression of that inmost meaning of the question, which it failed to find, is this:—What is this world of perception besides being my idea? Is that of which I am conscious only as idea, exactly like my own body, of which I am doubly conscious, in one aspect as *idea*, in another aspect as *will?* The fuller explanation of this question and its answer in the affirmative, will form the content of the second book, and its consequences will occupy the remaining portion of this work.

BOOK II. THE OBJECTIFICATION OF THE WILL

§ 17. . . . What now impels us to inquiry is, that we are not satisfied with knowing that we have ideas, that they are such and such, and that they are connected according to certain laws, the general expression of which is the principle of sufficient reason. We wish to know the significance of these ideas; we ask whether this world is merely idea; in which case it would pass by us like an empty dream or a baseless vision, not worth our notice; or whether it is also something else, something more than idea, and if so, what. Thus much is certain, that this something we seek for must be completely and in its whole nature different from the idea; that the forms and laws of the idea must therefore be completely foreign to it; further, that we cannot arrive at it from the idea under the guidance of the laws which merely combine objects, ideas, among themselves, and which are the forms of the principle of sufficient reason.

Thus we see already that we can never arrive at the real nature of things from without. However much we investigate, we can never reach anything but images and names. We are like a man who goes round a castle seeking in vain for an entrance,

and sometimes sketching the façades. And yet this is the method that has been followed by all philosophers before me.

§ 18. In fact, the meaning for which we seek of that world which is present to us only as our idea, or the transition from the world as mere idea of the knowing subject to whatever it may be besides this, would never be found if the investigator himself were nothing more than the pure knowing subject (a winged cherub without a body). But he is himself rooted in that world; he finds himself in it as an *individual*, that is to say, his knowledge, which is the necessary supporter of the whole world as idea, is yet always given through the medium of a body, whose affections are, as we have shown, the starting-point for the understanding in the perception of that world. His body is, for the pure knowing subject, an idea like every other idea, an object among objects. Its movements and actions are so far known to him in precisely the same way as the changes of all other perceived objects, and would be just as strange and incomprehensible to him if their meaning were not explained for him in an entirely different way. Otherwise he would see his actions follow upon given motives with the constancy of a law of nature just as the changes of other objects follow upon causes, stimuli, or motives. But he would not understand the influence of the motives any more than the connection between every other effect which he sees and its cause. He would then call the inner nature of these manifestations and actions of his body which he did not understand a force, a quality, or a character, as he pleased, but he would have no further insight into it. But all this is not the case; indeed the answer to the riddle is given to the subject of knowledge who appears as an individual, and the answer is *will*. This and this alone gives him the key to his own existence, reveals to him the significance, shows him the inner mechanism of his being, of his action, of his movements. The body is given in two entirely different ways to the subject of knowledge, who becomes an individual only through his identity with it. It is given as an idea in intelligent perception, as an object among objects and subject to the laws of objects. And it is also given in quite a different way as that which is immediately known to

every one, and is signified by the word *will.* Every true act of his will is also at once and without exception a movement of his body. The act of will and the movement of the body are not two different things objectively known, which the bond of causality unites; they do not stand in the relation of cause and effect; they are one and the same, but they are given in entirely different ways, — immediately, and again in perception for the understanding. The action of the body is nothing but the act of the will objectified, *i. e.*, passed into perception. It will appear later that this is true of every movement of the body, not merely those which follow upon motives, but also involuntary movements which follow upon mere stimuli, and, indeed, that the whole body is nothing but objectified will, *i. e.*, will become idea. All this will be proved and made quite clear in the course of this work. In one respect, therefore, I shall call the body the *objectivity of will;* as in the previous book, and in the essay on the principle of sufficient reason, in accordance with the one-sided point of view intentionally adopted there (that of the idea), I called it *the immediate object.* Thus in a certain sense we may also say that will is the knowledge *a priori* of the body, and the body is the knowledge *a posteriori* of the will. Resolutions of the will which relate to the future are merely deliberations of the reason about what we shall will at a particular time, not real acts of will. Only the carrying out of the resolve stamps it as will, for till then it is never more than an intention that may be changed, and that exists only in the reason *in abstracto.* It is only in reflection that to will and to act are different; in reality they are one. Every true, genuine, immediate act of will is also, at once and immediately, a visible act of the body. And, corresponding to this, every impression upon the body is also, on the other hand, at once and immediately an impression upon the will. As such it is called pain when it is opposed to the will; gratification or pleasure when it is in accordance with it. The degrees of both are widely different. It is quite wrong, however, to call pain and pleasure ideas, for they are by no means ideas, but immediate affections of the will in its manifestation, the body; compulsory, instantaneous willing or not-willing of the

impression which the body sustains. There are only a few impressions of the body which do not touch the will, and it is through these alone that the body is an immediate object of knowledge, for, as perceived by the understanding, it is already an indirect object like all others. These impressions are, therefore, to be treated directly as mere ideas, and excepted from what has been said. The impressions we refer to are the affections of the purely objective senses of sight, hearing, and touch, though only so far as these organs are affected in the way which is specially peculiar to their specific nature. This affection of them is so excessively weak an excitement of the heightened and specifically modified sensibility of these parts that it does not affect the will, but only furnishes the understanding with the data out of which the perception arises, undisturbed by any excitement of the will. But every stronger or different kind of affection of these organs of sense is painful, that is to say, against the will, and thus they also belong to its objectivity. Weakness of the nerves shows itself in this, that the impressions which have only such a degree of strength as would usually be sufficient to make them data for the understanding reach the higher degree at which they influence the will, that is to say, give pain or pleasure, though more often pain, which is, however, to some extent deadened and inarticulate, so that not only particular tones and strong light are painful to us, but there ensues a generally unhealthy and hypochondriacal disposition which is not distinctly understood. The identity of the body and the will shows itself further, among other ways, in the circumstance that every vehement and excessive movement of the will, *i. e.*, every emotion, agitates the body and its inner constitution directly, and disturbs the course of its vital functions. This is shown in detail in "Will in Nature," p. 27 of the second edition and p. 28 of the third.

Lastly, the knowledge which I have of my will, though it is immediate, cannot be separated from that which I have of my body. I know my will, not as a whole, not as a unity, not completely, according to its nature, but I know it only in its particular acts, and therefore in time, which is the form of the phenomenal aspect of my body, as of every object. Therefore the

body is a condition of the knowledge of my will. Thus, I cannot really imagine this will apart from my body. In the essay on the principle of sufficient reason, the will, or rather the subject of willing, is treated as a special class of ideas or objects. But even there we saw this object become one with the subject; that is, we saw it cease to be an object. We there called this union the miracle κατ' ἐξοχήν, and the whole of the present work is to a certain extent an explanation of this. So far as I know my will specially as object, I know it as body. But then I am again at the first class of ideas laid down in that essay, *i. e.*, real objects. As we proceed we shall see always more clearly that these ideas of the first class obtain their explanation and solution from those of the fourth class given in the essay, which could no longer be properly opposed to the subject as object, and that, therefore, we must learn to understand the inner nature of the law of causality which is valid in the first class, and of all that happens in accordance with it from the law of motivation which governs the fourth class.

The identity of the will and the body, of which we have now given a cursory explanation, can only be proved in the manner we have adopted here. We have proved this identity for the first time, and shall do so more and more fully in the course of this work. By "proved" we mean raised from the immediate consciousness, from knowledge in the concrete to abstract knowledge of the reason, or carried over into abstract knowledge. On the other hand, from its very nature it can never be demonstrated, that is, deduced as indirect knowledge from some other more direct knowledge, just because it is itself the most direct knowledge; and if we do not apprehend it and stick to it as such, we shall expect in vain to receive it again in some indirect way as derivative knowledge. It is knowledge of quite a special kind, whose truth cannot therefore properly be brought under any of the four rubrics under which I have classified all truth in the essay on the principle of sufficient reason, § 29, the logical, the empirical, the metaphysical, and the metalogical, for it is not, like all these, the relation of an abstract idea to another idea, or to the necessary form of perceptive or of abstract ideation.

but it is the relation of a judgment to the connection which an idea of perception, the body, has to that which is not an idea at all, but something *toto genere* different, will. I should like therefore to distinguish this from all other truth, and call it κατ' ἐξοχήν *philosophical truth.* We can turn the expression of this truth in different ways and say: My body and my will are one; — or, What as an idea of perception I call my body, I call my will, so far as I am conscious of it in an entirely different way which cannot be compared to any other; — or, My body is the *objectivity* of my will; — or, My body considered apart from the fact that it is my idea is still my will, and so forth.

§ 19. In the first book we were reluctantly driven to explain the human body as merely idea of the subject which knows it, like all the other objects of this world of perception. But it has now become clear that what enables us consciously to distinguish our own body from all other objects which in other respects are precisely the same, is that our body appears in consciousness in quite another way *toto genere* different from idea, and this we denote by the word *will;* and that it is just this double knowledge which we have of our own body that affords us information about it, about its action and movement following on motives and also about what it experiences by means of external impressions; in a word, about what is it, not as idea, but as more than idea; that is to say, what it is *in itself.* None of this information have we got directly with regard to the nature, action, and experience of other real objects.

It is just because of this special relation to one body that the knowing subject is an individual. For regarded apart from this relation, his body is for him, only an idea like all other ideas. But the relation through which the knowing subject is an *individual*, is just on that account a relation which subsists only between him and one particular idea of all those which he has. Therefore he is conscious of this one idea, not merely as an idea, but in quite a different way as a will. If, however, he abstracts from that special relation, from that twofold and completely heterogeneous knowledge of what is one and the same, then that *one*, the body, is an idea like all other ideas. Therefore, in

order to understand the matter, the individual who knows must either assume that what distinguishes that one idea from others is merely the fact that his knowledge stands in this double relation to it alone; that insight in two ways at the same time is open to him only in the case of this one object of perception, and that this is to be explained not by the difference of this object from all others, but only by the difference between the relation of his knowledge to this one object, and its relation to all other objects. Or else he must assume that this object is essentially different from all others; that it alone of all objects is at once both will and idea, while the rest are only ideas, *i. e.*, only phantoms. Thus he must assume that his body is the only real individual in the world, *i. e.*, the only phenomenon of will and the only immediate object of the subject. That other objects, considered merely as *ideas*, are like his body, that is, like it, fill space (which itself can only be present as idea), and also, like it, are causally active in space, is indeed demonstrably certain from the law of causality which is *a priori* valid for ideas, and which admits of no effect without a cause; but apart from the fact that we can only reason from an effect to a cause generally, and not to a similar cause, we are still in the sphere of mere ideas, in which alone the law of causality is valid, and beyond which it can never take us. But whether the objects known to the individual only as ideas are yet, like his own body, manifestations of a will, is, as was said in the First Book, the proper meaning of the question as to the reality of the external world. To deny this is *theoretical egoism*, which on that account regards all phenomena that are outside its own will as phantoms, just as in a practical reference exactly the same thing is done by practical egoism. For in it a man regards and treats himself alone as a person, and all other persons as mere phantoms. Theoretical egoism can never be demonstrably refuted, yet in philosophy it has never been used otherwise than as a sceptical sophism, *i. e.*, a pretence. As a serious conviction, on the other hand, it could only be found in a madhouse, and as such it stands in need of a cure rather than a refutation. We do not therefore combat it any further in this regard, but treat it as merely the last stronghold of scepticism,

which is always polemical. Thus our knowledge, which is always bound to individuality and is limited by this circumstance, brings with it the necessity that each of us can only *be one*, while, on the other hand, each of us can *know all;* and it is this limitation that creates the need for philosophy. We therefore who, for this very reason, are striving to extend the limits of our knowledge through philosophy, will treat this sceptical argument of theoretical egoism which meets us, as an army would treat a small frontier fortress. The fortress cannot indeed be taken, but the garrison can never sally forth from it, and therefore we pass it by without danger, and are not afraid to have it in our rear.

The double knowledge which each of us has of the nature and activity of his own body, and which is given in two completely different ways, has now been clearly brought out. We shall accordingly make further use of it as a key to the nature of every phenomenon in nature, and shall judge of all objects which are not our own bodies, and are consequently not given to our consciousness in a double way but only as ideas, according to the analogy of our own bodies, and shall therefore assume that as in one respect they are idea, just like our bodies, and in this respect are analogous to them, so in another aspect, what remains of objects when we set aside their existence as idea of the subject, must in its inner nature be the same as that in us which we call *will*. For what other kind of existence or reality should we attribute to the rest of the material world? Whence should we take the elements out of which we construct such a world? Besides will and idea nothing is known to us or thinkable. If we wish to attribute the greatest known reality to the material world which exists immediately only in our idea, we give it the reality which our own body has for each of us; for that is the most real thing for every one. But if we now analyse the reality of this body and its actions, beyond the fact that it is idea, we find nothing in it except the will; with this its reality is exhausted. Therefore we can nowhere find another kind of reality which we can attribute to the material world. Thus if we hold that the material world is something more than merely our idea, we must

say that besides being idea, that is, in itself and according to its inmost nature, it is that which we find immediately in ourselves as *will*. . . .

§ 21. Whoever has now gained from all these expositions a knowledge *in abstracto*, and therefore clear and certain, of what every one knows directly *in concreto*, *i.e.*, as feeling, a knowledge that his will is the real inner nature of his phenomenal being, which manifests itself to him as idea, both in his actions and in their permanent substratum, his body, and that his will is that which is most immediate in his consciousness, though it has not as such completely passed into the form of idea in which object and subject stand over against each other, but makes itself known to him in a direct manner, in which he does not quite clearly distinguish subject and object, yet is not known as a whole to the individual himself, but only in its particular acts, — whoever, I say, has with me gained this conviction will find that of itself it affords him the key to the knowledge of the inmost being of the whole of nature; for he now transfers it to all those phenomena which are not given to him, like his own phenomenal existence, both in direct and indirect knowledge, but only in the latter, thus merely onesidedly as *idea* alone. He will recognise this will of which we are speaking not only in those phenomenal existences which exactly resemble his own, in men and animals as their inmost nature, but the course of reflection will lead him to recognise the force which germinates and vegetates in the plant, and indeed the force through which the crystal is formed, that by which the magnet turns to the North Pole, the force whose shock he experiences from the contact of two different kinds of metals, the force which appears in the elective affinities of matter as repulsion and attraction, decomposition and combination, and, lastly, even gravitation, which acts so powerfully throughout matter, draws the stone to the earth and the earth to the sun, — all these, I say, he will recognise as different only in their phenomenal existence, but in their inner nature as identical, as that which is directly known to him so intimately and so much better than anything else, and which in its most distinct manifestation is called *will*. It is this application of

reflection alone that prevents us from remaining any longer at the phenomenon, and leads us to the *thing in itself*. Phenomenal existence is idea and nothing more. All idea, of whatever kind it may be, all *object*, is *phenomenal* existence, but the *will* alone is a *thing in itself*. As such, it is throughout not idea, but *toto genere* different from it; it is that of which all idea, all object, is the phenomenal appearance, the visibility, the objectification. It is the inmost nature, the kernel, of every particular thing, and also of the whole. It appears in every blind force of nature and also in the preconsidered action of man; and the great difference between these two is merely in the degree of the manifestation, not in the nature of what manifests itself.

§ 25. We know that *multiplicity* in general is necessarily conditioned by space and time, and is only thinkable in them. In this respect they are called the *principium individuationis*. But we have found that space and time are forms of the principle of sufficient reason. In this principle all our knowledge *a priori* is expressed, but, as we showed above, this *a priori* knowledge, as such, only applies to the knowableness of things, not to the things themselves, *i. e.*, it is only our form of knowledge, it is not a property of the thing-in-itself. The thing-in-itself is, as such, free from all forms of knowledge, even the most universal, that of being an object for the subject. In other words, the thing-in-itself is something altogether different from the idea. If, now, this thing-in-itself is *the will*, as I believe I have fully and convincingly proved it to be, then, regarded as such and apart from its manifestation, it lies outside time and space, and therefore knows no multiplicity, and is consequently *one*. Yet, as I have said, it is not one in the sense in which an individual or a concept is one, but as something to which the condition of the possibility of multiplicity, the *principium individuationis*, is foreign. The multiplicity of things in space and time, which collectively constitute the objectification of will, does not affect the will itself, which remains indivisible notwithstanding it. It is not the case that, in some way or other, a smaller part of will is in the stone and a larger part in the man, for the relation of part and whole belongs exclusively to space, and has no longer

any meaning when we go beyond this form of intuition or perception. The more and the less have application only to the phenomenon of will, that is, its visibility, its objectification. Of this there is a higher grade in the plant than in the stone; in the animal a higher grade than in the plant: indeed, the passage of will into visibility, its objectification, has grades as innumerable as exist between the dimmest twilight and the brightest sunshine, the loudest sound and the faintest echo. We shall return later to the consideration of these grades of visibility which belong to the objectification of the will, to the reflection of its nature. But as the grades of its objectification do not directly concern the will itself, still less is it concerned by the multiplicity of the phenomena of these different grades, *i. e.*, the multitude of individuals of each form, or the particular manifestations of each force. For this multiplicity is directly conditioned by time and space, into which the will itself never enters. The will reveals itself as completely and as much in *one* oak as in millions. Their number and multiplication in space and time has no meaning with regard to it, but only with regard to the multiplicity of individuals who know in space and time, and who are themselves multiplied and dispersed in these. The multiplicity of these individuals itself belongs not to the will, but only to its manifestation. We may therefore say that if, *per impossibile*, a single real existence, even the most insignificant, were to be entirely annihilated, the whole world would necessarily perish with it. The great mystic Angelus Silesius feels this when he says: —

> "I know God cannot live an instant without me,
> He must give up the ghost if I should cease to be."

Men have tried in various ways to bring the immeasurable greatness of the material universe nearer to the comprehension of us all, and then they have seized the opportunity to make edifying remarks. They have referred perhaps to the relative smallness of the earth, and indeed of man; or, on the contrary, they have pointed out the greatness of the mind of this man who is so insignificant — the mind that can solve, comprehend, and even measure the greatness of the universe, and so forth.

Now, all this is very well, but to me, when I consider the vastness of the world, the most important point is this, that the thing-in-itself, whose manifestation is the world — whatever else it may be — cannot have its true self spread out and dispersed after this fashion in boundless space, but that this endless extension belongs only to its manifestation. The thing-in-itself, on the contrary, is present entire and undivided in every object of nature and in every living being. Therefore we lose nothing by standing still beside any single individual thing, and true wisdom is not to be gained by measuring out the boundless world, or, what would be more to the purpose, by actually traversing endless space. It is rather to be attained by the thorough investigation of any individual thing, for thus we seek to arrive at a full knowledge and understanding of its true and peculiar nature.

The subject which will therefore be fully considered in the next book, and which has, doubtless, already presented itself to the mind of every student of Plato, is, that these different grades of the objectification of will which are manifested in innumerable individuals, and exist as their unattained types or as the eternal forms of things, not entering themselves into time and space, which are the medium of individual things, but remaining fixed, subject to no change, always being, never becoming, while the particular things arise and pass away, always become and never are, — that these *grades of the objectification of will* are, I say, simply *Plato's Ideas*. I make this passing reference to the matter here in order that I may be able in future to use the word *Idea* in this sense. In my writings, therefore, the word is always to be understood in its true and original meaning given to it by Plato, and has absolutely no reference to those abstract productions of dogmatising scholastic reason, which Kant has inaptly and illegitimately used this word to denote, though Plato had already appropriated and used it most fitly. By Idea, then, I understand every definite and fixed grade of the objectification of will, so far as it is thing-in-itself, and therefore has no multiplicity. These grades are related to individual things as their eternal forms or prototypes. The shortest and most concise statement of this famous Platonic doctrine is

given us by Diogenes Laertes (iii. 12): "Ὁ Πλάτων φησί, ἐν τῇ φύσει τὰς ἰδέας ἑστάναι, καθάπερ παραδείγματα, τὰ δ' ἄλλα ταύταις ἐοικέναι, τούτων ὁμοιώματα καθέστωτα." — ("Plato ideas in natura velut exemplaria dixit subsistere; cetera his esse similia, ad istarum similitudinem consistentia.")

BOOK III. THE PLATONIC IDEA: THE OBJECT OF ART

§ 32. It follows from our consideration of the subject, that, for us, Idea and thing-in-itself are not entirely one and the same, in spite of the inner agreement between Kant and Plato, and the identity of the aim they had before them or the conception of the world which roused them and led them to philosophise. The Idea is for us rather the direct, and therefore adequate, objectivity of the thing-in-itself, which is, however, itself the *will* — the will as not yet objectified, not yet become idea. For the thing-in-itself must, even according to Kant, be free from all the forms connected with knowing as such; and it is merely an error on his part that he did not count among these forms, before all others, that of being object for a subject, for it is the first and most universal form of all phenomena, *i. e.*, of all idea; he should therefore have distinctly denied objective existence to his thing-in-itself, which would have saved him from a great inconsistency that was soon discovered. The Platonic Idea, on the other hand, is necessarily object, something known, an idea, and in that respect is different from the thing-in-itself, but in that respect only. It has merely laid aside the subordinate forms of the phenomenon, all of which we include in the principle of sufficient reason, or rather it has not yet assumed them; but it has retained the first and most universal form, that of the idea in general, the form of being object for a subject. It is the forms which are subordinate to this (whose general expression is the principle of sufficient reason) that multiply the Idea in particular transitory individuals, whose number is a matter of complete indifference to the Idea. The principle of sufficient reason is thus again the form into which

the Idea enters when it appears in the knowledge of the subject as individual. The particular thing that manifests itself in accordance with the principle of sufficient reason is thus only an indirect objectification of the thing-in-itself (which is the will), for between it and the thing-in-itself stands the Idea as the only direct objectivity of the will, because it has assumed none of the special forms of knowledge as such, except that of the idea in general, *i. e.*, the form of being object for a subject. Therefore it alone is the most *adequate objectivity* of the will or thing-in-itself which is possible; indeed it is the whole thing-in-itself, only under the form of the idea; and here lies the ground of the great agreement between Plato and Kant, although, in strict accuracy, that of which they speak is not the same. But the particular things are no really adequate objectivity of the will, for in them it is obscured by those forms whose general expression is the principle of sufficient reason, but which are conditions of the knowledge which belongs to the individual as such. If it is allowable to draw conclusions from an impossible presupposition, we would, in fact, no longer know particular things, nor events, nor change, nor multiplicity, but would comprehend only Ideas, — only the grades of the objectification of that one will, of the thing-in-itself, in pure unclouded knowledge. Consequently our world would be a *nunc stans*, if it were not that, as knowing subjects, we are also individuals, *i. e.*, our perceptions come to us through the medium of a body, from the affections of which they proceed, and which is itself only concrete willing, objectivity of the will, and thus is an object among objects, and as such comes into the knowing consciousness in the only way in which an object can, through the forms of the principle of sufficient reason, and consequently already presupposes, and therefore brings in, time, and all other forms which that principle expresses. Time is only the broken and piecemeal view which the individual being has of the Ideas, which are outside time, and consequently *eternal*. Therefore Plato says time is the moving picture of eternity: αἰῶνος εἰκὼν κινητὴ ὁ χρόνος.

§ 35. In order to gain a deeper insight into the nature of the

world, it is absolutely necessary that we should learn to distinguish the will as thing-in-itself from its adequate objectivity, and also the different grades in which this appears more and more distinctly and fully, *i. e.*, the Ideas themselves, from the merely phenomenal existence of these Ideas in the forms of the principle of sufficient reason, the restricted method of knowledge of the individual. We shall then agree with Plato when he attributes actual being only to the Ideas, and allows only an illusive, dream-like existence to things in space and time, the real world for the individual. Then we shall understand how one and the same Idea reveals itself in so many phenomena, and presents its nature only bit by bit to the individual, one side after another. Then we shall also distinguish the Idea itself from the way in which its manifestation appears in the observation of the individual, and recognise the former as essential and the latter as unessential. Let us consider this with the help of examples taken from the most insignificant things, and also from the greatest. When the clouds move, the figures which they form are not essential, but indifferent to them; but that as elastic vapour they are pressed together, drifted along, spread out, or torn asunder by the force of the wind: this is their nature, the essence of the forces which objectify themselves in them, the Idea; their actual forms are only for the individual observer. To the brook that flows over stones, the eddies, the waves, the foam-flakes which it forms are indifferent and unessential; but that it follows the attraction of gravity, and behaves as inelastic, perfectly mobile, formless, transparent fluid: this is its nature; this, *if known through perception*, is its Idea; these accidental forms are only for us so long as we know as individuals. The ice on the window-pane forms itself into crystals according to the laws of crystallisation, which reveal the essence of the force of nature that appears here, exhibit the Idea; but the trees and flowers which it traces on the pane are unessential, and are only there for us. What appears in the clouds, the brook, and the crystal is the weakest echo of that will which appears more fully in the plant, more fully still in the beast, and most fully in man. But only the essential in all these grades of its objectification

constitutes the Idea; on the other hand, its unfolding or development, because broken up in the forms of the principle of sufficient reason into a multiplicity of many-sided phenomena, is unessential to the Idea, lies merely in the kind of knowledge that belongs to the individual and has reality only for this. The same thing necessarily holds good of the unfolding of that Idea which is the completest objectivity of will. Therefore, the history of the human race, the throng of events, the change of times, the multifarious forms of human life in different lands and countries, all this is only the accidental form of the manifestation of the Idea, does not belong to the Idea itself, in which alone lies the adequate objectivity of the will, but only to the phenomenon which appears in the knowledge of the individual, and is just as foreign, unessential, and indifferent to the Idea itself as the figures which they assume are to the clouds, the form of its eddies and foam-flakes to the brook, or its trees and flowers to the ice.

To him who has thoroughly grasped this, and can distinguish between the will and the Idea, and between the Idea and its manifestation, the events of the world will have significance only so far as they are the letters out of which we may read the Idea of man, but not in and for themselves. He will not believe with the vulgar that time may produce something actually new and significant; that through it, or in it, something absolutely real may attain to existence, or indeed that it itself as a whole has beginning and end, plan and development, and in some way has for its final aim the highest perfection (according to their conception) of the last generation of man,whose life is a brief thirty years. Therefore he will just as little, with Homer, people a whole Olympus with gods to guide the events of time, as, with Ossian, he will take the forms of the clouds for individual beings; for, as we have said, both have just as much meaning as regards the Idea which appears in them. In the manifold forms of human life and in the unceasing change of events, he will regard the Idea only as the abiding and essential, in which the will to live has its fullest objectivity, and which shows its different sides in the capacities, the passions, the errors and the excellences of

the human race; in self-interest, hatred, love, fear, boldness, frivolity, stupidity, slyness, wit, genius, and so forth, all of which crowding together and combining in thousands of forms (individuals), continually create the history of the great and the little world, in which it is all the same whether they are set in motion by nuts or by crowns. Finally, he will find that in the world it is the same as in the dramas of Dozzi, in all of which the same persons appear, with like intention, and with a like fate; the motives and incidents are certainly different in each piece, but the spirit of the incidents is the same; the actors in one piece know nothing of the incidents of another, although they performed in it themselves; therefore, after all experience of former pieces, Pantaloon has become no more agile or generous, Tartaglia no more conscientious, Brighella no more courageous, and Columbine no more modest.

Suppose we were allowed for once a clearer glance into the kingdom of the possible, and over the whole chain of causes and effects; if the earth-spirit appeared and showed us in a picture all the greatest men, enlighteners of the world, and heroes, that chance destroyed before they were ripe for their work; then the great events that would have changed the history of the world and brought in periods of the highest culture and enlightenment, but which the blindest chance, the most insignificant accident, hindered at the outset; lastly, the splendid powers of great men, that would have enriched whole ages of the world, but which, either misled by error or passion, or compelled by necessity, they squandered uselessly on unworthy or unfruitful objects, or even wasted in play. If we saw all this, we would shudder and lament at the thought of the lost treasures of whole periods of the world. But the earth-spirit would smile and say, "The source from which the individuals and their powers proceed is inexhaustible and unending as time and space; for, like these forms of all phenomena, they also are only phenomena, visibility of the will. No finite measure can exhaust that infinite source; therefore an undiminished eternity is always open for the return of any event or work that was nipped in the bud. In this world of phenomena true loss is just as little possible as true gain. The

will alone is; it is the thing-in-itself, and the source of all these phenomena. Its self-knowledge and its assertion or denial, which is then decided upon, is the only event in-itself."

§ 36. History follows the thread of events; it is pragmatic so far as it deduces them in accordance with the law of motivation, a law that determines the self-manifesting will wherever it is enlightened by knowledge. At the lowest grades of its objectivity, where it still acts without knowledge, natural science, in the form of etiology, treats of the laws of the changes of its phenomena, and, in the form of morphology, of what is permanent in them. This almost endless task is lightened by the aid of concepts, which comprehend what is general in order that we may deduce what is particular from it. Lastly, mathematics treats of the mere forms, time and space, in which the Ideas, broken up into multiplicity, appear for the knowledge of the subject as individual. All these, of which the common name is science, proceed according to the principle of sufficient reason in its different forms, and their theme is always the phenomenon, its laws, connections, and the relations which result from them. But what kind of knowledge is concerned with that which is outside and independent of all relations, that which alone is really essential to the world, the true content of its phenomena, that which is subject to no change, and therefore is known with equal truth for all time, in a word, the *Ideas*, which are the direct and adequate objectivity of the thing-in-itself, the will? We answer, *Art*, the work of genius. It repeats or reproduces the eternal Ideas grasped through pure contemplation, the essential and abiding in all the phenomena of the world; and according to what the material is in which it reproduces, it is sculpture or painting, poetry or music. Its one source is the knowledge of Ideas; its one aim the communication of this knowledge. While science, following the unresting and inconstant stream of the fourfold forms of reason and consequent, with each end attained sees further, and can never reach a final goal nor attain full satisfaction, any more than by running we can reach the place where the clouds touch the horizon; art, on the contrary, is everywhere at its goal. For it plucks the object of its contem-

plation out of the stream of the world's course, and has it isolated before it. And this particular thing, which in that stream was a small perishing part, becomes to art the representative of the whole, an equivalent of the endless multitude in space and time. It therefore pauses at this particular thing; the course of time stops; the relations vanish for it; only the essential, the Idea, is its object. We may, therefore, accurately define it as the *way of viewing things independent of the principle of sufficient reason*, in opposition to the way of viewing them which proceeds in accordance with that principle, and which is the method of experience and of science. This last method of considering things may be compared to a line infinitely extended in a horizontal direction, and the former to a vertical line which cuts it at any point. The method of viewing things which proceeds in accordance with the principle of sufficient reason is the rational method, and it alone is valid and of use in practical life and in science. The method which looks away from the content of this principle is the method of genius, which is only valid and of use in art. The first is the method of Aristotle; the second is, on the whole, that of Plato. The first is like the mighty storm, that rushes along without beginning and without aim, bending, agitating, and carrying away everything before it; the second is like the silent sunbeam, that pierces through the storm quite unaffected by it. The first is like the innumerable showering drops of the waterfall, which, constantly changing, never rest for an instant; the second is like the rainbow, quietly resting on this raging torrent Only through the pure contemplation described above, which ends entirely in the object, can Ideas be comprehended; and the nature of *genius* consists in pre-eminent capacity for such contemplation. Now, as this requires that a man should entirely forget himself and the relations in which he stands, *genius* is simply the completest *objectivity, i. e.*, the objective tendency of the mind, as opposed to the subjective, which is directed to one's own self — in other words, to the will. Thus genius is the faculty of continuing in the state of pure perception, of losing oneself in perception, and of enlisting in this service the knowledge which originally existed only for the service of the

will; that is to say, genius is the power of leaving one's own interests, wishes, and aims entirely out of sight, thus of entirely renouncing one's own personality for a time, so as to remain *pure knowing subject*, clear vision of the world; and this not merely at moments, but for a sufficient length of time, and with sufficient consciousness, to enable one to reproduce by deliberate art what has thus been apprehended, and "to fix in lasting thoughts the wavering images that float before the mind." It is as if, when genius appears in an individual, a far larger measure of the power of knowledge falls to his lot than is necessary for the service of an individual will; and this superfluity of knowledge, being free, now becomes subject purified from will, a clear mirror of the inner nature of the world. This explains the activity, amounting even to disquietude, of men of genius, for the present can seldom satisfy them, because it does not fill their consciousness. This gives them that restless aspiration, that unceasing desire for new things, and for the contemplation of lofty things, and also that longing that is hardly ever satisfied, for men of similar nature and of like stature, to whom they might communicate themselves; whilst the common mortal, entirely filled and satisfied by the common present, ends in it, and finding everywhere his like, enjoys that peculiar satisfaction in daily life that is denied to genius.

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BOOK IV. THE ASSERTION AND DENIAL OF THE WILL

§ 57. At every grade that is enlightened by knowledge, the will appears as an individual. The human individual finds himself as finite in infinite space and time, and consequently as a vanishing quantity compared with them. He is projected into them, and, on account of their unlimited nature, he has always a merely relative, never absolute *when* and *where* of his existence; for his place and duration are finite parts of what is infinite and boundless. His real existence is only in the present, whose unchecked flight into the past is a constant transition into death,

a constant dying. For his past life, apart from its possible consequences for the present, and the testimony regarding the will that is expressed in it, is now entirely done with, dead, and no longer anything; and, therefore, it must be, as a matter of reason, indifferent to him whether the content of that past was pain or pleasure. But the present is always passing through his hands into the past; the future is quite uncertain and always short. Thus his existence, even when we consider only its formal side, is a constant hurrying of the present into the dead past, a constant dying. But if we look at it from the physical side, it is clear that, as our walking is admittedly merely a constantly prevented falling, the life of our body is only a constantly prevented dying, an ever-postponed death: finally, in the same way, the activity of our mind is a constantly deferred ennui. Every breath we draw wards off the death that is constantly intruding upon us. In this way we fight with it every moment, and again, at longer intervals, through every meal we eat, every sleep we take, every time we warm ourselves, etc. In the end, death must conquer, for we became subject to him through birth, and he only plays for a little while with his prey before he swallows it up. We pursue our life, however, with great interest and much solicitude as long as possible, as we blow out a soap-bubble as long and as large as possible, although we know perfectly well that it will burst.

We saw that the inner being of unconscious nature is a constant striving without end and without rest. And this appears to us much more distinctly when we consider the nature of brutes and man. Willing and striving is its whole being, which may be very well compared to an unquenchable thirst. But the basis of all willing is need, deficiency, and thus pain. Consequently, the nature of brutes and man is subject to pain originally and through its very being. If, on the other hand, it lacks objects of desire, because it is at once deprived of them by a too easy satisfaction, a terrible void and ennui comes over it, *i. e.*, its being and existence itself becomes an unbearable burden to it. Thus its life swings like a pendulum backwards and forwards between pain and ennui. This has also had to express itself very oddly

in this way; after man had transferred all pain and torments to hell, there then remained nothing over for heaven but ennui.

But the constant striving which constitutes the inner nature of every manifestation of will obtains its primary and most general foundation at the higher grades of objectification, from the fact that here the will manifests itself as a living body, with the iron command to nourish it; and what gives strength to this command is just that this body is nothing but the objectified will to live itself. Man, as the most complete objectification of that will, is in like measure also the most necessitous of all beings: he is through and through concrete willing and needing; he is a concretion of a thousand necessities. With these he stands upon the earth, left to himself, uncertain about everything except his own need and misery. Consequently the care for the maintenance of that existence under exacting demands, which are renewed every day, occupies, as a rule, the whole of human life. To this is directly related the second claim, that of the propagation of the species. At the same time he is threatened from all sides by the most different kinds of dangers, from which it requires constant watchfulness to escape. With cautious steps and casting anxious glances round him he pursues his path, for a thousand accidents and a thousand enemies lie in wait for him. Thus he went while yet a savage, thus he goes in civilised life; there is no security for him.

> "Qualibus in tenebris vitae, quantisque periclis
> Degitur hocc' aevi, quodcunque est!" — LUCR. ii, 15.

The life of the great majority is only a constant struggle for this existence itself, with the certainty of losing it at last. But what enables them to endure this wearisome battle is not so much the love of life as the fear of death, which yet stands in the background as inevitable, and may come upon them at any moment. Life itself is a sea, full of rocks and whirlpools, which man avoids with the greatest care and solicitude, although he knows that even if he succeeds in getting through with all his efforts and skill, he yet by doing so comes nearer at every step to the greatest, the total, inevitable, and irremediable shipwreck, death; nay, even steers right upon it: this is the final goal of the laborious

voyage, and worse for him than all the rocks from which he has escaped.

Now it is well worth observing that, on the one hand, the suffering and misery of life may easily increase to such an extent that death itself, in the flight from which the whole of life consists, becomes desirable, and we hasten towards it voluntarily; and again, on the other hand, that as soon as want and suffering permit rest to a man, ennui is at once so near that he necessarily requires diversion. The striving after existence is what occupies all living things and maintains them in motion. But when existence is assured, then they know not what to do with it; thus the second thing that sets them in motion is the effort to get free from the burden of existence, to make it cease to be felt, "to kill time," *i. e.*, to escape from ennui. Accordingly we see that almost all men who are secure from want and care, now that at last they have thrown off all other burdens, become a burden to themselves, and regard as a gain every hour they succeed in getting through, and thus every diminution of the very life which, till then, they have employed all their powers to maintain as long as possible. Ennui is by no means an evil to be lightly esteemed; in the end it depicts on the countenance real despair. It makes beings who love each other so little as men do, seek each other eagerly, and thus becomes the source of social intercourse. Moreover, even from motives of policy, public precautions are everywhere taken against it, as against other universal calamities. For this evil may drive men to the greatest excesses, just as much as its opposite extreme, famine: the people require *panem et circenses*. The strict penitentiary system of Philadelphia makes use of ennui alone as a means of punishment, through solitary confinement and idleness, and it is found so terrible that it has even led prisoners to commit suicide. As want is the constant scourge of the people, so ennui is that of the fashionable world. In middle-class life ennui is represented by the Sunday, and want by the six week-days.

Thus between desiring and attaining all human life flows on throughout. The wish is, in its nature, pain; the attainment soon begets satiety: the end was only apparent; possession

takes away the charm; the wish, the need, presents itself under a new form; when it does not, then follows desolateness, emptiness, ennui, against which the conflict is just as painful as against want. That wish and satisfaction should follow each other neither too quickly nor too slowly reduces the suffering which both occasion to the smallest amount, and constitutes the happiest life. For that which we might otherwise call the most beautiful part of life, its purest joy, if it were only because it lifts us out of real existence and transforms us into disinterested spectators of it — that is, pure knowledge, which is foreign to all willing, the pleasure of the beautiful, the true delight in art — this is granted only to a very few, because it demands rare talents, and to these few only as a passing dream. And then, even these few, on account of their higher intellectual power, are made susceptible of far greater suffering than duller minds can ever feel, and are also placed in lonely isolation by a nature which is obviously different from that of others; thus here also accounts are squared. But to the great majority of men purely intellectual pleasures are not accessible. They are almost quite incapable of the joys which lie in pure knowledge. They are entirely given up to willing. If, therefore, anything is to win their sympathy, to be *interesting* to them, it must (as is implied in the meaning of the word) in some way excite their *will*, even if it is only through a distant and merely problematical relation to it; the will must not be left altogether out of the question, for their existence lies far more in willing than in knowing, — action and reaction is their one element. We may find in trifles and everyday occurrences the naïve expressions of this quality. Thus, for example, at any place worth seeing they may visit, they write their names, in order thus to react, to affect the place since it does not affect them. Again, when they see a strange, rare animal, they cannot easily confine themselves to merely observing it; they must rouse it, tease it, play with it, merely to experience action and reaction; but this need for excitement of the will manifests itself very specially in the discovery and support of card-playing, which is quite peculiarly the expression of the miserable side of humanity.

But whatever nature and fortune may have done, whoever a man be and whatever he may possess, the pain which is essential to life cannot be thrown off: *Πηλείδης δ' ᾤμωξεν, ἰδὼν εἰς οὐρανὸν εὐρύν.* (Pelides autem ejulavit, intuitus in coelum latum.) And again: *Ζηνὸς μὲν παῖς ἦα Κρονίονος, αὐτὰρ ὀϊζὺν εἶχον ἀπειρεσίην.* (Jovis quidem filius eram Saturnii; verum aerumnam habebam infinitam). The ceaseless efforts to banish suffering accomplish no more than to make it change its form. It is essentially deficiency, want, care for the maintenance of life. If we succeed, which is very difficult, in removing pain in this form, it immediately assumes a thousand others, varying according to age and circumstances, such as lust, passionate love, jealousy, envy, hatred, anxiety, ambition, covetousness, sickness, etc., etc. If at last it can find entrance in no other form, it comes in the sad, grey garments of tediousness and ennui, against which we then strive in various ways. If finally we succeed in driving this away, we shall hardly do so without letting pain enter in one of its earlier forms, and the dance begin again from the begnining; for all human life is tossed backwards and forwards between pain and ennui.

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§ 58. All satisfaction, or what is commonly called happiness, is always really and essentially only *negative*, and never positive. It is not an original gratification coming to us of itself, but must always be the satisfaction of a wish. The wish, *i. e.*, some want, is the condition which precedes every pleasure. But with the satisfaction the wish and therefore the pleasure cease. Thus the satisfaction or the pleasing can never be more than the deliverance from a pain, from a want; for such is not only every actual, open sorrow, but every desire, the importunity of which disturbs our peace, and, indeed, the deadening ennui also that makes life a burden to us. It is, however, so hard to attain or achieve anything; difficulties and troubles without end are opposed to every purpose, and at every step hindrances accumulate. But when finally everything is overcome and attained, nothing can ever be gained but deliverance from some sorrow or desire, so that we find ourselves just in the same position as we

occupied before this sorrow or desire appeared. All that is even directly given us is merely the want, *i. e.*, the pain. The satisfaction and the pleasure we can only know indirectly through the remembrance of the preceding suffering and want, which ceases with its appearance. Hence it arises that we are not properly conscious of the blessings and advantages we actually possess, nor do we prize them, but think of them merely as a matter of course, for they gratify us only negatively by restraining suffering. Only when we have lost them do we become sensible of their value; for the want, the privation, the sorrow, is the positive, communicating itself directly to us. Thus also we are pleased by the remembrance of past need, sickness, want, and such like, because this is the only means of enjoying the present blessings. And, further, it cannot be denied that in this respect, and from this standpoint of egoism, which is the form of the will to live, the sight or the description of the sufferings of others affords us satisfaction and pleasure in precisely the way Lucretius beautifully and frankly expresses it in the beginning of the Second Book: —

> "Suave, mari magno, turbantibus aequora ventis,
> E terra magnum alterius spectare laborem :
> Non, quia vexari quemquam est jucunda voluptas ;
> Sed, quibus ipse malis careas, quia cernere suave est."

Yet we shall see farther on that this kind of pleasure, through knowledge of our own well-being obtained in this way, lies very near the source of real, positive wickedness.

That all happiness is only of a negative not a positive nature, that just on this account it cannot be lasting satisfaction and gratification, but merely delivers us from some pain or want which must be followed either by a new pain, or by languor, empty longing, and ennui; this finds support in art, that true mirror of the world and life, and especially in poetry. Every epic and dramatic poem can only represent a struggle, an effort, and fight for happiness, never enduring and complete happiness itself. It conducts its heroes through a thousand difficulties and dangers to the goal; as soon as this is reached, it hastens to let the curtain fall: for now there would remain nothing for it to do

but to show that the glittering goal in which the hero expected to find happiness had only disappointed him, and that after its attainment he was no better off than before. Because a genuine enduring happiness is not possible, it cannot be the subject of art. Certainly the aim of the idyll is the description of such a happiness, but one also sees that the idyll as such cannot continue. The poet always finds that it either becomes epical in his hands, and in this case it is a very insignificant epic, made up of trifling sorrows, trifling delights, and trifling efforts — this is the commonest case — or else it becomes a merely descriptive poem, describing the beauty of nature, *i. e.*, pure knowing free from will, which certainly, as a matter of fact, is the only pure happiness, which is neither preceded by suffering or want, nor necessarily followed by repentance, sorrow, emptiness, or satiety; but this happiness cannot fill the whole life, but is only possible at moments. What we see in poetry we find again in music; in the melodies of which we have recognised the universal expression of the inmost history of the self-conscious will, the most secret life, longing, suffering, and delight; the ebb and flow of the human heart. Melody is always a deviation from the keynote through a thousand capricious wanderings, even to the most painful discord, and then a final return to the keynote which expresses the satisfaction and appeasing of the will, but with which nothing more can then be done, and the continuance of which any longer would only be a wearisome and unmeaning monotony corresponding to ennui.

All that we intend to bring out clearly through these investigations, the impossibility of attaining lasting satisfaction and the negative nature of all happiness, finds its explantion in what is shown at the conclusion of the Second Book: that the will, of which human life, like every phenomenon, is the objectification, is a striving without aim or end. We find the stamp of this endlessness imprinted upon all the parts of its whole manifestation, from its most universal form, endless time and space, up to the most perfect of all phenomena, the life and efforts of man. We may theoretically assume three extremes of human life, and treat them as elements of actual human life.

First, the powerful will, the strong passions (Radscha-Guna). It appears in great historical characters; it is described in the epic and the drama. But it can also show itself in the little world, for the size of the objects is measured here by the degree in which they influence the will, not according to their external relations. Secondly, pure knowing, the comprehension of the Ideas, conditioned by the freeing of knowledge from the service of will: the life of genius (Satwa-Guna). Thirdly and lastly, the greatest lethargy of the will, and also of the knowledge attaching to it, empty longing, life-benumbing languor (Tama-Guna). The life of the individual, far from becoming permanently fixed in one of these extremes, seldom touches any of them, and is for the most part only a weak and wavering approach to one or the other side, a needy desiring of trifling objects, constantly recurring, and so escaping ennui. It is really incredible how meaningless and void of significance when looked at from without, how dull and unenlightened by intellect when felt from within, is the course of the life of the great majority of men. It is a weary longing and complaining, a dream-like staggering through the four ages of life to death, accompanied by a series of trivial thoughts. Such men are like clockwork, which is wound up, and goes it knows not why; and every time a man is begotten and born, the clock of human life is wound up anew, to repeat the same old piece it has played innumerable times before, passage after passage, measure after measure, with insignificant variations. Every individual, every human being and his course of life, is but another short dream of the endless spirit of nature, of the persistent will to live; is only another fleeting form, which it carelessly sketches on its infinite page, space and time; allows to remain for a time so short that it vanishes into nothing in comparison with these, and then obliterates to make new room. And yet, and here lies the serious side of life, every one of these fleeting forms, these empty fancies, must be paid for by the whole will to live, in all its activity, with many and deep sufferings, and finally with a bitter death, long feared and coming at last. This is why the sight of a corpse makes us suddenly so serious.

The life of every individual, if we survey it as a whole and in general, and only lay stress upon its most significant features, is really always a tragedy, but gone through in detail, it has the character of a comedy. For the deeds and vexations of the day, the restless irritation of the moment, the desires and fears of the week, the mishaps of every hour, are all through chance, which is ever bent upon some jest, scenes of a comedy. But the never-satisfied wishes, the frustrated efforts, the hopes unmercifully crushed by fate, the unfortunate errors of the whole life, with increasing suffering and death at the end, are always a tragedy. Thus, as if fate would add derision to the misery of our existence, our life must contain all the woes of tragedy, and yet we cannot even assert the dignity of tragic characters, but in the broad detail of life must inevitably be the foolish characters of a comedy.

But however much great and small trials may fill human life, they are not able to conceal its insufficiency to satisfy the spirit; they cannot hide the emptiness and superficiality of existence, nor exclude ennui, which is always ready to fill up every pause that care may allow. Hence it arises that the human mind, not content with the cares, anxieties, and occupations which the actual world lays upon it, creates for itself an imaginary world also in the form of a thousand different superstitions, then finds all manner of employment with this, and wastes time and strength upon it, as soon as the real world is willing to grant it the rest which it is quite incapable of enjoying. This is accordingly most markedly the case with nations for which life is made easy by the congenial nature of the climate and the soil, most of all with the Hindus, then with the Greeks, the Romans, and later with the Italians, the Spaniards, etc. Demons, gods, and saints man creates in his own image; and to them he must then unceasingly bring offerings, prayers, temple decorations, vows and their fulfilment, pilgrimages, salutations, ornaments for their images, etc. Their service mingles everywhere with the real, and, indeed, obscures it. Every event of life is regarded as the work of these beings; the intercourse with them occupies half the time of life, constantly sustains hope, and by the charm of illusion often becomes more interesting than intercourse with real beings.

It is the expression and symptom of the actual need of mankind, partly for help and support, partly for occupation and diversion; and if it often works in direct opposition to the first need, because when accidents and dangers arise valuable time and strength, instead of being directed to warding them off, are uselessly wasted on prayers and offerings; it serves the second end all the better by this imaginary converse with a visionary spirit world; and this is the by no means contemptible gain of all superstitions.

§ 68. All suffering, since it is a mortification and a call to resignation, has potentially a sanctifying power. This is the explanation of the fact that every great misfortune or deep pain inspires a certain awe. But the sufferer only really becomes an object of reverence when, surveying the course of his life as a chain of sorrows, or mourning some great and incurable misfortune, he does not really look at the special combination of circumstances which has plunged his own life into suffering, nor stops at the single great misfortune that has befallen him; for in so doing his knowledge still follows the principle of sufficient reason, and clings to the particular phenomenon; he still wills life, only not under the conditions which have happened to him; but only then, I say, is he truly worthy of reverence when he raises his glance from the particular to the universal, when he regards his suffering as merely an example of the whole, and for him, since in a moral regard he partakes of genius, one case stands for a thousand, so that the whole of life conceived as essentially suffering brings him to resignation. Therefore it inspires reverence when in Goethe's "Torquato Tasso" the princess speaks of how her own life and that of her relations has always been sad and joyless, and yet regards the matter from an entirely universal point of view.

A very noble character we always imagine with a certain trace of quiet sadness, which is anything but a constant fretfulness at daily annoyances (this would be an ignoble trait, and lead us to fear a bad disposition), but is a consciousness derived from knowledge of the vanity of all possessions, of the suffering of all life, not merely of his own. But such knowledge may pri-

marily be awakened by the personal experience of suffering, especially some one great sorrow, as a single unfulfilled wish brought Petrarch to that state of resigned sadness concerning the whole of life which appeals to us so pathetically in his works; for the Daphne he pursued had to flee from his hands in order to leave him, instead of herself, the immortal laurel. When through some such great and irrevocable denial of fate the will is to some extent broken, almost nothing else is desired, and the character shows itself mild, just, noble, and resigned. When, finally, grief has no definite object, but extends itself over the whole of life, then it is to a certain extent a going into itself, a withdrawal, a gradual disappearance of the will, whose visible manifestation, the body, it imperceptibly but surely undermines, so that a man feels a certain loosening of his bonds, a mild foretaste of that death which promises to be the abolition at once of the body and of the will. Therefore a secret pleasure accompanies this grief, and it is this, as I believe, which the most melancholy of all nations has called "the joy of grief." But here also lies the danger of *sentimentality*, both in life itself and in the representation of it in poetry; when a man is always mourning and lamenting without courageously rising to resignation. In this way we lose both earth and heaven, and retain merely a watery sentimentality. Only if suffering assumes the form of pure knowledge, and this, acting as a *quieter of the will*, brings about resignation, is it worthy of reverence. In this regard, however, we feel a certain respect at the sight of every great sufferer which is akin to the feeling excited by virtue and nobility of character, and also seems like a reproach of our own happy condition. We cannot help regarding every sorrow, both our own and those of others, as at least a potential advance towards virtue and holiness, and, on the contrary, pleasures and worldly satisfactions as a retrogression from them. This goes so far, that every man who endures a great bodily or mental suffering, indeed every one who merely performs some physical labour which demands the greatest exertion, in the sweat of his brow and with evident exhaustion, yet with patience and without murmuring, every such man, I say, if we consider him with close

attention, appears to us like a sick man who tries a painful cure, and who willingly, and even with satisfaction, endures the suffering it causes him, because he knows that the more he suffers the more the cause of his disease is affected, and that therefore the present suffering is the measure of his cure.

According to what has been said, the denial of the will to live, which is just what is called absolute, entire resignation, or holiness, always proceeds from that quieter of the will which the knowledge of its inner conflict and essential vanity, expressing themselves in the suffering of all living things, becomes. The difference, which we have represented as two paths, consists in whether that knowledge is called up by suffering which is merely and purely *known*, and is freely appropriated by means of the penetration of the *principium individuationis*, or by suffering which is directly *felt* by a man himself. True salvation, deliverance from life and suffering, cannot even be imagined without complete denial of the will. Till then, every one is simply this will itself, whose manifestation is an ephemeral existence, a constantly vain and empty striving, and the world full of suffering we have represented, to which all irrevocably and in like manner belong. For we found above that life is always assured to the will to live, and its one real form is the present, from which they can never escape, since birth and death reign in the phenomenal world. The Indian mythus expresses this by saying "they are born again." The great ethical difference of character means this, that the bad man is infinitely far from the attainment of the knowledge from which the denial of the will proceeds, and therefore he is in truth *actually* exposed to all the miseries which appear in life as *possible;* for even the present fortunate condition of his personality is merely a phenomenon produced by the *principium individuationis*, and a delusion of Mâyâ, the happy dream of a beggar. The sufferings which in the vehemence and ardour of his will he inflicts upon others are the measure of the suffering, the experience of which in his own person cannot break his will, and plainly lead it to the denial of itself. All true and pure love, on the other hand, and even all free justice, proceed from the penetration of the *principium*

individuationis, which, if it appears with its full power, results in perfect sanctification and salvation, the phenomenon of which is the state of resignation described above, the unbroken peace which accompanies it, and the greatest delight in death.

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AUGUSTE COMTE

(1798–1857)

THE POSITIVE PHILOSOPHY

Freely translated and condensed from the French by*
HARRIET MARTINEAU

INTRODUCTION

CHAPTER I. VIEW OF THE NATURE AND IMPORTANCE OF THE POSITIVE PHILOSOPHY

A GENERAL statement of any system of philosophy may be either a sketch of a doctrine to be established, or a summary of a doctrine already established. If greater value belongs to the last, the first is still important, as characterizing from its origin the subject to be treated. In a case like the present, where the proposed study is vast and hitherto indeterminate, it is especially important that the field of research should be marked out with all possible accuracy. For this purpose, I will glance at the considerations which have originated this work, and which will be fully elaborated in the course of it.

In order to understand the true value and character of the Positive Philosophy, we must take a brief general view of the progressive course of the human mind, regarded as a whole; for no conception can be understood otherwise than through its history.

From the study of the development of human intelligence, in all directions, and through all times, the discovery arises of a great fundamental law, to which it is necessarily subject, and which has a solid foundation of proof, both in the facts of our organization and in our historical experience. The law is this: — that each of our leading conceptions, — each branch of our knowledge, — passes successively through three different theo-

* From the *Cours de Philosophie positive*, Paris, 1830–1842. Reprinted from A. Comte's *The Positive Philosophy*, London, 1853, vol. i, ch. 1.

retical conditions: the Theological, or fictitious; the Metaphysical, or abstract; and the Scientific, or positive. In other words, the human mind, by its nature, employs in its progress three methods of philosophizing, the character of which is essentially different, and even radically opposed: viz., the theological method, the metaphysical, and the positive. Hence arise three philosophies, or general systems of conceptions on the aggregate of phenomena, each of which excludes the others. The first is the necessary point of departure of the human understanding; and the third is its fixed and definitive state. The second is merely a state of transition.

In the theological state, the human mind, seeking the essential nature of beings, the first and final causes (the origin and purpose) of all effects,—in short, Absolute knowledge,—supposes all phenomena to be produced by the immediate action of supernatural beings.

In the metaphysical state, which is only a modification of the first, the mind supposes, instead of supernatural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing all phenomena. What is called the explanation of phenomena is, in this stage, a mere reference of each to its proper entity.

In the final, the positive state, the mind has given over the vain search after Absolute notions, the origin and destination of the universe, and the causes of phenomena, and applies itself to the study of their laws, — that is, their invariable relations of succession and resemblance. Reasoning and observation, duly combined, are the means of this knowledge. What is now understood when we speak of an explanation of facts is simply the establishment of a connection between single phenomena and some general facts, the number of which continually diminishes with the progress of science.

The Theological system arrived at the highest perfection of which it is capable when it substituted the providential action of a single Being for the varied operations of the numerous divinities which had been before imagined. In the same way, in the last stage of the Metaphysical system, men substitute one

great entity (Nature) as the cause of all phenomena, instead of the multitude of entities at first supposed. In the same way, again, the ultimate perfection of the Positive system would be (if such perfection could be hoped for) to represent all phenomena as particular aspects of a single general fact; — such as Gravitation, for instance.

The importance of the working of this general law will be established hereafter. At present, it must suffice to point out some of the grounds of it.

There is no science which, having attained the positive stage, does not bear marks of having passed through the others. Some time since it was (whatever it might be) composed, as we can now perceive, of metaphysical abstractions; and, further back in the course of time, it took its form from theological conceptions. We shall have only too much occasion to see, as we proceed, that our most advanced sciences still bear very evident marks of the two earlier periods through which they have passed.

The progress of the individual mind is not only an illustration, but an indirect evidence of that of the general mind. The point of departure of the individual and of the race being the same, the phases of the mind of a man correspond to the epochs of the mind of the race. Now, each of us is aware, if he looks back upon his own history, that he was a theologian in his childhood, a metaphysician in his youth, and a natural philosopher in his manhood. All men who are up to their age can verify this for themselves.

Besides the observation of facts, we have theoretical reasons in support of this law.

The most important of these reasons arises from the necessity that always exists for some theory to which to refer our facts, combined with the clear impossibility that, at the outset of human knowledge, men could have formed theories out of the observation of facts. All good intellects have repeated, since Bacon's time, that there can be no real knowledge but that which is based on observed facts. This is incontestable, in our present advanced stage; but, if we look back to the primitive stage of human knowledge, we shall see that it must have been

otherwise then. If it is true that every theory must be based upon observed facts, it is equally true that facts cannot be observed without the guidance of some theory. Without such guidance, our facts would be desultory and fruitless; we could not retain them: for the most part we could not even perceive them.

Thus, between the necessity of observing facts in order to form a theory, and having a theory in order to observe facts, the human mind would have been entangled in a vicious circle, but for the natural opening afforded by Theological conceptions. This is the fundamental reason for the theological character of the primitive philosophy. This necessity is confirmed by the perfect suitability of the theological philosophy to the earliest researches of the human mind. It is remarkable that the most inaccessible questions, — those of the nature of beings, and the origin and purpose of phenomena, — should be the first to occur in a primitive state, while those which are really within our reach are regarded as almost unworthy of serious study. The reason is evident enough: — that experience alone can teach us the measure of our powers; and if men had not begun by an exaggerated estimate of what they can do, they would never have done all that they are capable of. Our organization requires this. At such a period there could have been no reception of a positive philosophy, whose function is to discover the laws of phenomena, and whose leading characteristic it is to regard as interdicted to human reason those sublime mysteries which theology explains, even to their minutest details, with the most attractive facility. It is just so under a practical view of the nature of the researches with which men first occupied themselves. Such inquiries offered the powerful charm of unlimited empire over the external world, — a world destined wholly for our use, and involved in every way with our existence. The theological philosophy, presenting this view, administered exactly the stimulus necessary to incite the human mind to the irksome labour without which it could make no progress. We can now scarcely conceive of such a state of things, our reason having become sufficiently mature to enter upon laborious

scientific researches, without needing any such stimulus as wrought upon the imaginations of astrologers and alchemists. We have motive enough in the hope of discovering the laws of phenomena, with a view to the confirmation or rejection of a theory. But it could not be so in the earliest days; and it is to the chimeras of astrology and alchemy that we owe the long series of observations and experiments on which our positive science is based. Kepler felt this on behalf of astronomy, and Berthollet on behalf of chemistry. Thus was a spontaneous philosophy, the theological, the only possible beginning, method, and provisional system, out of which the Positive philosophy could grow. It is easy, after this, to perceive how Metaphysical methods and doctrines must have afforded the means of transition from the one to the other.

The human understanding, slow in its advance, could not step at once from the theological into the positive philosophy. The two are so radically opposed, that an intermediate system of conceptions has been necessary to render the transition possible. It is only in doing this, that Metaphysical conceptions have any utility whatever. In contemplating phenomena, men substitute for supernatural direction a corresponding entity. This entity may have been supposed to be derived from the supernatural action: but it is more easily lost sight of, leaving attention free for the facts themselves, till, at length, metaphysical agents have ceased to be anything more than the abstract names of phenomena. It is not easy to say by what other process than this our minds could have passed from supernatural considerations to natural; from the theological system to the positive.

The Law of human development being thus established, let us consider what is the proper nature of the Positive Philosophy.

As we have seen, the first characteristic of the Positive Philosophy is that it regards all phenomena as subjected to invariable natural *Laws*. Our business is, — seeing how vain is any research into what are called *Causes*, whether first or final, — to pursue an accurate discovery of these Laws, with a view to reducing them to the smallest possible number. By speculating

upon causes, we could solve no difficulty about origin and purpose. Our real business is to analyse accurately the circumstances of phenomena, and to connect them by the natural relations of succession and resemblance. The best illustration of this is in the case of the doctrine of Gravitation. We say that the general phenomena of the universe are *explained* by it, because it connects under one head the whole immense variety of astronomical facts; exhibiting the constant tendency of atoms towards each other in direct proportion to their masses, and in inverse proportion to the squares of their distances; whilst the general fact itself is a mere extension of one which is perfectly familiar to us, and which we therefore say that we know; — the weight of bodies on the surface of the earth. As to what weight and attraction are, we have nothing to do with that, for it is not a matter of knowledge at all. Theologians and metaphysicians may imagine and refine about such questions; but positive philosophy rejects them. When any attempt has been made to explain them, it has ended only in saying that attraction is universal weight, and that weight is terrestrial attraction: that is, that the two orders of phenomena are identical; which is the point from which the question set out. Again, M. Fourier, in his fine series of researches on Heat, has given us all the most important and precise laws of the phenomena of heat, and many large and new truths, without once inquiring into its nature, as his predecessors had done when they disputed about calorific matter and the action of an universal ether. In treating his subject in the Positive method, he finds inexhaustible material for all his activity of research, without betaking himself to insoluble questions.

Before ascertaining the stage which the Positive Philosophy has reached, we must bear in mind that the different kinds of our knowledge have passed through the three stages of progress at different rates, and have not therefore arrived at the same time. The rate of advance depends on the nature of the knowledge in question, so distinctly that, as we shall see hereafter, this consideration constitutes an accessory to the fundamental law of progress. Any kind of knowledge reaches the positive

stage early in proportion to its generality, simplicity, and independence of other departments. Astronomical science, which is above all made up of facts that are general, simple, and independent of other sciences, arrived first; then terrestrial Physics; then Chemistry; and, at length, Physiology.

It is difficult to assign any precise date to this revolution in science. It may be said, like everything else, to have been always going on; and especially since the labours of Aristotle and the school of Alexandria; and then from the introduction of natural science into the West of Europe by the Arabs. But, if we must fix upon some marked period, to serve as a rallying point, it must be that, — about two centuries ago, — when the human mind was astir under the precepts of Bacon, the conceptions of Descartes, and the discoveries of Galileo. Then it was that the spirit of the Positive philosophy rose up in opposition to that of the superstitious and scholastic systems which had hitherto obscured the true character of all science. Since that date, the progress of the Positive philosophy, and the decline of the other two, have been so marked that no rational mind now doubts that the revolution is destined to go on to its completion, — every branch of knowledge being, sooner or later, brought within the operation of Positive philosophy. This is not yet the case. Some are still lying outside: and not till they are brought in will the Positive philosophy possess that character of universality which is necessary to its definitive constitution.

In mentioning just now the four principal categories of phenomena, — astronomical, physical, chemical, and physiological, — there was an omission which will have been noticed. Nothing was said of Social phenomena. Though involved with the physiological, Social phenomena demand a distinct classification, both on account of their importance and of their difficulty. They are the most individual, the most complicated, the most dependent on all others; and therefore they must be the latest, — even if they had no special obstacle to encounter. This branch of science has not hitherto entered into the domain of Positive philosophy. Theological and metaphysical methods,

exploded in other departments, are as yet exclusively applied, both in the way of inquiry and discussion, in all treatment of Social subjects, though the best minds are heartily weary of eternal disputes about divine right and the sovereignty of the people. This is the great, while it is evidently the only gap which has to be filled, to constitute, solid and entire, the Positive Philosophy. Now that the human mind has grasped celestial and terrestrial physics, — mechanical and chemical; organic physics, both vegetable and animal, — there remains one science, to fill up the series of sciences of observation, — Social physics. This is what men have now most need of: and this it is the principal aim of the present work to establish.

It would be absurd to pretend to offer this new science at once in a complete state. Others, less new, are in very unequal conditions of forwardness. But the same character of positivity which is impressed on all the others will be shown to belong to this. This once done, the philosophical system of the moderns will be in fact complete, as there will then be no phenomenon which does not naturally enter into some one of the five great categories. All our fundamental conceptions having become homogeneous, the Positive state will be fully established. It can never again change its character, though it will be for ever in course of development by additions of new knowledge. Having acquired the character of universality which has hitherto been the only advantage resting with the two preceding systems, it will supersede them by its natural superiority, and leave to them only an historical existence.

We have stated the special aim of this work. Its secondary and general aim is this: — to review what has been effected in the Sciences, in order to show that they are not radically separate, but all branches from the same trunk. If we had confined ourselves to the first and special object of the work, we should have produced merely a study of Social physics: whereas, in introducing the second and general we offer a study of Positive philosophy, passing in review all the positive sciences already formed.

The purpose of this work is not to give an account of the

Natural Sciences. Besides that it would be endless, and that it would require a scientific preparation such as no one man possesses, it would be apart from our object, which is to go through a course of not Positive Science, but Positive Philosophy. We have only to consider each fundamental science in its relation to the whole positive system, and to the spirit which characterizes it; that is, with regard to its methods and its chief results.

The two aims, though distinct, are inseparable; for, on the one hand, there can be no positive philosophy without a basis of social science, without which it could not be all-comprehensive; and, on the other hand, we could not pursue Social science without having been prepared by the study of phenomena less complicated than those of society, and furnished with a knowledge of laws and anterior facts which have a bearing upon social science. Though the fundamental sciences are not all equally interesting to ordinary minds, there is no one of them that can be neglected in an inquiry like the present; and, in the eye of philosophy, all are of equal value to human welfare. Even those which appear the least interesting have their own value, either on account of the perfection of their methods, or as being the necessary basis of all the others.

Lest it should be supposed that our course will lead us into a wilderness of such special studies as are at present the bane of a true positive philosophy, we will briefly advert to the existing prevalence of such special pursuit. In the primitive state of human knowledge there is no regular division of intellectual labour. Every student cultivates all the sciences. As knowledge accrues, the sciences part off; and students devote themselves each to some one branch. It is owing to this division of employment, and concentration of whole minds upon a single department, that science has made so prodigious an advance in modern times; and the perfection of this division is one of the most important characteristics of the Positive philosophy. But, while admitting all the merits of this change, we cannot be blind to the eminent disadvantages which arise from the limitation of minds to a particular study. It is inevitable that each should be possessed with exclusive notions, and be therefore incapable of

the general superiority of ancient students, who actually owed that general superiority to the inferiority of their knowledge. We must consider whether the evil can be avoided without losing the good of the modern arrangement; for the evil is becoming urgent. We all acknowledge that the divisions established for the convenience of scientific pursuit are radically artificial; and yet there are very few who can embrace in idea the whole of any one science: each science moreover being itself only a part of a great whole. Almost every one is busy about his own particular section, without much thought about its relation to the general system of positive knowledge. We must not be blind to the evil, nor slow in seeking a remedy. We must not forget that this is the weak side of the positive philosophy, by which it may yet be attacked, with some hope of success, by the adherents of the theological and metaphysical systems. As to the remedy, it certainly does not lie in a return to the ancient confusion of pursuits, which would be mere retrogression, if it were possible, which it is not. It lies in perfecting the division of employments itself, —in carrying it one degree higher,—in constituting one more speciality from the study of scientific generalities. Let us have a new class of students, suitably prepared, whose business it shall be to take the respective sciences as they are, determine the spirit of each, ascertain their relations and mutual connection, and reduce their respective principles to the smallest number of general principles, in conformity with the fundamental rules of the Positive Method. At the same time, let other students be prepared for their special pursuit by an education which recognizes the whole scope of positive science, so as to profit by the labours of the students of generalities, and so as to correct reciprocally, under that guidance, the results obtained by each. We see some approach already to this arrangement. Once established, there would be nothing to apprehend from any extent of division of employments. When we once have a class of learned men, at the disposal of all others, whose business it shall be to connect each new discovery with the general system, we may dismiss all fear of the great whole being lost sight of in the pursuit of the details of knowledge. The organization of scien-

tific research will then be complete; and it will henceforth have occasion only to extend its development, and not to change its character. After all, the formation of such a new class as is proposed would be merely an extension of the principle which has created all the classes we have. While science was narrow, there was only one class: as it expanded, more were instituted. With a further advance a fresh need arises, and this new class will be the result.

The general spirit of a course of Positive Philosophy having been thus set forth, we must now glance at the chief advantages which may be derived, on behalf of human progression, from the study of it. Of these advantages, four may be especially pointed out.

I. The study of the Positive Philosophy affords the only rational means of exhibiting the logical laws of the human mind, which have hitherto been sought by unfit methods. To explain what is meant by this, we may refer to a saying of M. de Blainville, in his work on Comparative Anatomy, that every active, and especially every living being, may be regarded under two relations — the Statical and the Dynamical; that is, under conditions or in action. It is clear that all considerations range themselves under the one or the other of these heads. Let us apply this classification to the intellectual functions.

If we regard these functions under their Statical aspect — that is, if we consider the conditions under which they exist — we must determine the organic circumstances of the case, which inquiry involves it with anatomy and physiology. If we look at the Dynamic aspect, we have to study simply the exercise and results of the intellectual powers of the human race, which is neither more nor less than the general object of the Positive Philosophy. In short, looking at all scientific theories as so many great logical facts, it is only by the thorough observation of these facts that we can arrive at the knowledge of logical laws. These being the only means of knowledge of intellectual phenomena, the illusory psychology, which is the last phase of theology, is excluded. It pretends to accomplish the discovery of the laws of the human mind by contemplating it in itself; that is, by

separating it from causes and effects. Such an attempt, made in defiance of the physiological study of our intellectual organs, and of the observation of rational methods of procedure, cannot succeed at this time of day.

The Positive Philosophy, which has been rising since the time of Bacon, has now secured such a preponderance, that the metaphysicians themselves profess to ground their pretended science on an observation of facts. They talk of external and internal facts, and say that their business is with the latter. This is much like saying that vision is explained by luminous objects painting their images upon the retina. To this the physiologists reply that another eye would be needed to see the image. In the same manner, the mind may observe all phenomena but its own. It may be said that a man's intellect may observe his passions, the seat of the reason being somewhat apart from that of the emotions in the brain; but there can be nothing like scientific observation of the passions, except from without, as the stir of the emotions disturbs the observing faculties more or less. It is yet more out of the question to make an intellectual observation of intellectual processes. The observing and observed organs are here the same, and its action cannot be pure and natural. In order to observe, your intellect must pause from activity; yet it is this very activity that you want to observe. If you cannot effect the pause, you cannot observe: if you do effect it, there is nothing to observe. The results of such a method are in proportion to its absurdity. After two thousand years of psychological pursuit, no one proposition is established to the satisfaction of its followers. They are divided, to this day, into a multitude of schools, still disputing about the very elements of their doctrine. This interior observation gives birth to almost as many theories as there are observers. We ask in vain for any one discovery, great or small, which has been made under this method. The psychologists have done some good in keeping up the activity of our understandings, when there was no better work for our faculties to do; and they may have added something to our stock of knowledge. If they have done so, it is by practising the Positive method — by observing the progress of the human

mind in the light of science; that is, by ceasing, for the moment, to be psychologists.

The view just given in relation to logical Science becomes yet more striking when we consider the logical Art.

The Positive Method can be judged of only in action. It cannot be looked at by itself, apart from the work on which it is employed. At all events, such a contemplation would be only a dead study, which could produce nothing in the mind which loses time upon it. We may talk for ever about the method, and state it in terms very wisely, without knowing half so much about it as the man who has once put it in practice upon a single particular of actual research, even without any philosophical intention. Thus it is that psychologists, by dint of reading the precepts of Bacon and the discourses of Descartes, have mistaken their own dreams for science.

Without saying whether it will ever be possible to establish *à priori* a true method of investigation, independent of a philosophical study of the sciences, it is clear that the thing has never been done yet, and that we are not capable of doing it now. We cannot as yet explain the great logical procedures, apart from their applications. If we ever do, it will remain as necessary then as now to form good intellectual habits by studying the regular application of the scientific methods which we shall have attained.

This, then, is the first great result of the Positive Philosophy — the manifestation by experiment of the laws which rule the Intellect in the investigation of truth; and, as a consequence the knowledge of the general rules suitable for that object.

II. The second effect of the Positive Philosophy, an effect not less important and far more urgently wanted, will be to regenerate Education. The best minds are agreed that our European education, still essentially theological, metaphysical, and literary, must be superseded by a Positive training, conformable to our time and needs. Even the governments of our day have shared, where they have not originated, the attempts to establish positive instruction; and this is a striking indication of the prevalent sense of what is wanted. While encouraging such

endeavours to the utmost, we must not however conceal from ourselves that everything yet done is inadequate to the object. The present exclusive speciality of our pursuits, and the consequent isolation of the sciences, spoil our teaching. If any student desires to form an idea of natural philosophy as a whole, he is compelled to go through each department as it is now taught, as if he were to be only an astronomer, or only a chemist; so that, be his intellect what it may, his training must remain very imperfect. And yet his object requires that he should obtain general positive conceptions of all the classes of natural phenomena. It is such an aggregate of conceptions, whether on a great or on a small scale, which must henceforth be the permanent basis of all human combinations. It will constitute the mind of future generations. In order to this regeneration of our intellectual system, it is necessary that the sciences, considered as branches from one trunk, should yield us, as a whole, their chief methods and their most important results. The specialities of science can be pursued by those whose vocation lies in that direction. They are indispensable; and they are not likely to be neglected; but they can never of themselves renovate our system of Education; and, to be of their full use, they must rest upon the basis of that general instruction which is a direct result of the Positive Philosophy.

III. The same special study of scientific generalities must also aid the progress of the respective positive sciences: and this constitutes our third head of advantages.

The divisions which we establish between the sciences are, though not arbitrary, essentially artificial. The subject of our researches is one: we divide it for our convenience, in order to deal the more easily with its difficulties. But it sometimes happens — and especially with the most important doctrines of each science — that we need what we cannot obtain under the present isolation of the sciences, — a combination of several special points of view; and for want of this, very important problems wait for their solution much longer than they otherwise need do. To go back into the past for an example: Descartes' grand conception with regard to analytical geometry is a dis-

covery which has changed the whole aspect of mathematical science, and yielded the germ of all future progress; and it issued from the union of two sciences which had always before been separately regarded and pursued. The case of pending questions is yet more impressive; as, for instance, in Chemistry, the doctrine of Definite Proportions. Without entering upon the discussion of the fundamental principle of this theory, we may say with assurance that, in order to determine it — in order to determine whether it is a law of nature that atoms should necessarily combine in fixed numbers, — it will be indispensable that the chemical point of view should be united with the physiological. The failure of the theory with regard to organic bodies indicates that the cause of this immense exception must be investigated; and such an inquiry belongs as much to physiology as to chemistry. Again, it is as yet undecided whether azote is a simple or a compound body. It was concluded by almost all chemists that azote is a simple body; the illustrious Berzelius hesitated, on purely chemical considerations; but he was also influenced by the physiological observation that animals which receive no azote in their food have as much of it in their tissues as carnivorous animals. From this we see how physiology must unite with chemistry to inform us whether azote is simple or compound, and to institute a new series of researches upon the relation between the composition of living bodies and their mode of alimentation.

Such is the advantage which, in the third place, we shall owe to Positive philosophy — the elucidation of the respective sciences by their combination. In the fourth place

IV. The Positive Philosophy offers the only solid basis for that Social Reorganization which must succeed the critical condition in which the most civilized nations are now living.

It cannot be necessary to prove to anybody who reads this work that Ideas govern the world, or throw it into chaos; in other words, that all social mechanism rests upon Opinions. The great political and moral crisis that societies are now undergoing is shown by a rigid analysis to arise out of intellectual anarchy. While stability in fundamental maxims is the first

condition of genuine social order, we are suffering under an utter disagreement which may be called universal. Till a certain number of general ideas can be acknowledged as a rallying-point of social doctrine, the nations will remain in a revolutionary state, whatever palliatives may be devised; and their institutions can be only provisional. But whenever the necessary agreement on first principles can be obtained, appropriate institutions will issue from them, without shock or resistance; for the causes of disorder will have been arrested by the mere fact of the agreement. It is in this direction that those must look who desire a natural and regular, a normal state of society.

Now, the existing disorder is abundantly accounted for by the existence, all at once, of three incompatible philosophies, — the theological, the metaphysical, and the positive. Any one of these might alone secure some sort of social order; but while the three co-exist, it is impossible for us to understand one another upon any essential point whatever. If this is true, we have only to ascertain which of the philosophies must, in the nature of things, prevail; and, this ascertained, every man, whatever may have been his former views, cannot but concur in its triumph. The problem once recognized cannot remain long unsolved; for all considerations whatever point to the Positive Philosophy as the one destined to prevail. It alone has been advancing during a course of centuries, throughout which the others have been declining. The fact is incontestable. Some may deplore it, but none can destroy it, nor therefore neglect it but under penalty of being betrayed by illusory speculations. This general revolution of the human mind is nearly accomplished. We have only to complete the Positive Philosophy by bringing Social phenomena within its comprehension, and afterwards consolidating the whole into one body of homogeneous doctrine. The marked preference which almost all minds, from the highest to the commonest, accord to positive knowledge over vague and mystical conceptions, is a pledge of what the reception of this philosophy will be when it has acquired the only quality that it now wants — a character of due generality. When it has become complete, its supremacy will take place spontaneously, and will re-estab-

lish order throughout society. There is, at present, no conflict but between the theological and the metaphysical philosophies. They are contending for the task of reorganizing society; but it is a work too mighty for either of them. The positive philosophy has hitherto intervened only to examine both, and both are abundantly discredited by the process. It is time now to be doing something more effective, without wasting our forces in needless controversy. It is time to complete the vast intellectual operation begun by Bacon, Descartes, and Galileo, by constructing the system of general ideas which must henceforth prevail among the human race. This is the way to put an end to the revolutionary crisis which is tormenting the civilized nations of the world.

Leaving these four points of advantage, we must attend to one precautionary reflection.

Because it is proposed to consolidate the whole of our acquired knowledge into one body of homogeneous doctrine, it must not be supposed that we are going to study this vast variety as proceeding from a single principle, and as subjected to a single law. There is something so chimerical in attempts at universal explanation by a single law, that it may be as well to secure this Work at once from any imputation of the kind, though its development will show how undeserved such an imputation would be. Our intellectual resources are too narrow, and the universe is too complex, to leave any hope that it will ever be within our power to carry scientific perfection to its last degree of simplicity. Moreover, it appears as if the value of such an attainment, supposing it possible, were greatly overrated. The only way, for instance, in which we could achieve the business, would be by connecting all natural phenomena with the most general law we know, — which is that of Gravitation, by which astronomical phenomena are already connected with a portion of terrestrial physics. Laplace has indicated that chemical phenomena may be regarded as simple atomic effects of the Newtonian attraction, modified by the form and mutual position of the atoms. But supposing this view proveable (which it cannot be while we are without data about the constitution of bodies), the difficulty of

its application would doubtless be found so great that we must still maintain the existing division between astronomy and chemistry, with the difference that we now regard as natural that division which we should then call artificial. Laplace himself presented his idea only as a philosophic device, incapable of exercising any useful influence over the progress of chemical science. Moreover, supposing this insuperable difficulty overcome, we should be no nearer to scientific unity, since we then should still have to connect the whole of physiological phenomena with the same law, which certainly would not be the least difficult part of the enterprise. Yet, all things considered, the hypothesis we have glanced at would be the most favourable to the desired unity.

The consideration of all phenomena as referable to a single origin is by no means necessary to the systematic formation of science, any more than to the realization of the great and happy consequences that we anticipate from the positive philosophy. The only necessary unity is that of Method, which is already in great part established. As for the doctrine, it need not be *one*; it is enough that it should be *homogeneous*. It is, then, under the double aspect of unity of method and homogeneousness of doctrine that we shall consider the different classes of positive theories in this work. While pursuing the philosophical aim of all science, the lessening of the number of general laws requisite for the explanation of natural phenomena, we shall regard as presumptuous every attempt, in all future time, to reduce them rigorously to one.

Having thus endeavoured to determine the spirit and influence of the Positive Philosophy, and to mark the goal of our labours, we have now to proceed to the exposition of the system; that is, to the determination of the universal, or encyclopædic order, which must regulate the different classes of natural phenomena, and consequently the corresponding positive sciences.

JOHN STUART MILL
(1806–1873)

AN EXAMINATION OF SIR WILLIAM HAMILTON'S PHILOSOPHY

*CHAPTER XI. THE PSYCHOLOGICAL THEORY OF THE BELIEF IN AN EXTERNAL WORLD**

We have seen Sir W. Hamilton at work on the question of the reality of Matter, by the introspective method, and, as it seems, with little result. Let us now approach the same subject by the psychological. I proceed, therefore, to state the case of those who hold that the belief in an external world is not an intuitive, but an acquired product.

This theory postulates the following psychological truths, all of which are proved by experience, and are not contested, though their force is seldom adequately felt, by Sir W. Hamilton and the other thinkers of the introspective school.

It postulates, first, that the human mind is capable of Expectation. In other words, that after having had actual sensations, we are capable of forming the conception of Possible sensations; sensations which we are not feeling at the present moment, but which we might feel, and should feel if certain conditions were present, the nature of which conditions we have, in many cases, learned by experience.

It postulates, secondly, the laws of the Association of Ideas. So far as we are here concerned, these laws are the following: 1st. Similar phænomena tend to be thought of together. 2d. Phænomena which have either been experienced or conceived in close contiguity to one another, tend to be thought of together. The contiguity is of two kinds; simultaneity and immediate succession. Facts which have been experienced or thought of simultaneously, recall the thought of one another. Of facts

* Reprinted from J. S. Mill's *An Examination of Sir William Hamilton's Philosophy*, London, Longmans, Green & Co., 1865.

which have been experienced or thought of in immediate succession, the antecedent, or the thought of it, recalls the thought of the consequent, but not conversely. 3d. Associations produced by contiguity become more certain and rapid by repetition. When two phænomena have been very often experienced in conjunction, and have not, in any single instance, occurred separately either in experience or in thought, there is produced between them what has been called Inseparable, or less correctly, Indissoluble Association: by which is not meant that the association must inevitably last to the end of life — that no subsequent experience or process of thought can possibly avail to dissolve it; but only that as long as no such experience or process of thought has taken place, the association is irresistible; it is impossible for us to think the one thing disjoined from the other. 4th. When an association has acquired this character of inseparability — when the bond between the two ideas has been thus firmly riveted, not only does the idea called up by association become, in our consciousness, inseparable from the idea which suggested it, but the facts or phænomena answering to those ideas, come at last to seem inseparable in existence: things which we are unable to conceive apart, appear incapable of existing apart; and the belief we have in their coexistence, though really a product of experience, seems intuitive. Innumerable examples might be given of this law. One of the most familiar, as well as the most striking, is that of our acquired perceptions of sight. Even those who, with Mr. Bailey, consider the perception of distance by the eye as not acquired, but intuitive, admit that there are many perceptions of sight which, though instantaneous and unhesitating, are not intuitive. What we see is a very minute fragment of what we think we see. We see artificially that one thing is hard, another soft. We see artificially that one thing is hot, another cold. We see artificially that what we see is a book, or a stone, each of these being not merely an inference, but a heap of inferences, from the signs which we see, to things not visible.

Setting out from these premises, the Psychological Theory maintains, that there are associations naturally and even neces-

sarily generated by the order of our sensations and of our reminiscences of sensation, which, supposing no intuition of an external world to have existed in consciousness, would inevitably generate the belief, and would cause it to be regarded as an intuition.

What is it we mean when we say that the object we perceive is external to us, and not a part of our own thoughts? We mean, that there is in our perceptions something which exists when we are not thinking of it; which existed before we had ever thought of it, and would exist if we were annihilated; and further, that there exist things which we never saw, touched, or otherwise perceived, and things which never have been perceived by man. This idea of something which is distinguished from our fleeting impressions by what, in Kantian language, is called Perdurability; something which is fixed and the same, while our impressions vary; something which exists whether we are aware of it or not, and which is always square (or of some other given figure) whether it appears to us square or round — constitutes altogether our idea of external substance. Whoever can assign an origin to this complex conception, has accounted for what we mean by the belief in matter. Now, all this, according to the Psychological Theory, is but the form impressed by the known laws of association, upon the conception or notion, obtained by experience, of Contingent Sensations; by which are meant, sensations that are not in our present consciousness, and perhaps never were in our consciousness at all, but which, in virtue of the laws to which we have learned by experience that our sensations are subject, we know that we should have felt under given supposable circumstances, and under these same circumstances, might still feel.

I see a piece of white paper on a table. I go into another room, and though I have ceased to see it, I am persuaded that the paper is still there. I no longer have the sensations which it gave me; but I believe that when I again place myself in the circumstances in which I had those sensations, that is, when I go again into the room, I shall again have them; and further, that there has been no intervening moment at which this would not have

been the case. Owing to this property of my mind, my conception of the world at any given instant consists, in only a small proportion, of present sensations. Of these I may at the time have none at all, and they are in any case a most insignificant portion of the whole which I apprehend. The conception I form of the world existing at any moment, comprises, along with the sensations I am feeling, a countless variety of possibilities of sensations: namely, the whole of those which past observation tells me that I could, under any supposable circumstances, experience at this moment, together with an indefinite and illimitable multitude of others which though I do not know that I could, yet it is possible that I might, experience in circumstances not known to me. These various possibilities are the important thing to me in the world. My present sensations are generally of little importance, and are moreover fugitive: the possibilities, on the contrary, are permanent, which is the character that mainly distinguishes our idea of Substance or Matter from our notion of sensation. These possibilities, which are conditional certainties, need a special name to distinguish them from mere vague possibilities, which experience gives no warrant for reckoning upon. Now, as soon as a distinguishing name is given, though it be only to the same thing regarded in a different aspect, one of the most familiar experiences of our mental nature teaches us, that the different name comes to be considered as the name of a different thing.

There is another important peculiarity of these certified or guaranteed possibilities of sensation; namely, that they have reference, not to single sensations, but to sensations joined together in groups. When we think of anything as a material substance, or body, we either have had, or we think that on some given supposition we should have, not some *one* sensation, but a great and even an indefinite number and variety of sensations, generally belonging to different senses, but so linked together, that the presence of one announces the possible presence at the very same instant of any or all of the rest. In our mind, therefore, not only is this particular Possibility of sensation invested with the quality of permanence when we are not actually feeling

any of the sensations at all; but when we are feeling some of them, the remaining sensations of the group are conceived by us in the form of Present Possibilities, which might be realized at the very moment. And as this happens in turn to all of them, the group as a whole presents itself to the mind as permanent, in contrast not solely with the temporariness of my bodily presence, but also with the temporary character of each of the sensations composing the group; in other words, as a kind of permanent substratum, under a set of passing experiences or manifestations: which is another leading character of our idea of substance or matter, as distinguished from sensation.

Let us now take into consideration another of the general characters of our experience, namely, that in addition to fixed groups, we also recognize a fixed Order in our sensations; an Order of succession, which, when ascertained by observation, gives rise to the ideas of Cause and Effect, according to what I hold to be the true theory of that relation, and is in any case the source of all our knowledge *what* causes produce what effects. Now, of what nature is this fixed order among our sensations? It is a constancy of antecedence and sequence. But the constant antecedence and sequence do not generally exist between one actual sensation and another. Very few such sequences are presented to us by experience. In almost all the constant sequences which occur in Nature, the antecedence and consequence do not obtain between sensations, but between the groups we have been speaking about, of which a very small portion is actual sensation, the greater part being permanent possibilities of sensation, evidenced to us by a small and variable number of sensations actually present. Hence, our ideas of causation, power, activity, do not become connected in thought with our sensations as *actual* at all, save in the few physiological cases where these figure by themselves as the antecedents in some uniform sequence. Those ideas become connected, not with sensations, but with groups of possibilities of sensation. The sensations conceived do not, to our habitual thoughts, present themselves as sensations actually experienced, inasmuch as not only any one or any number of them may be supposed absent, but none of them need

be present. We find that the modifications which are taking place more or less regularly in our possibilities of sensation, are mostly quite independent of our consciousness, and of our presence or absence. Whether we are asleep or awake, the fire goes out, and puts an end to one particular possibility of warmth and light. Whether we are present or absent, the corn ripens, and brings a new possibility of food. Hence we speedily learn to think of Nature as made up solely of these groups of possibilities, and the active force in Nature as manifested in the modification of some of these by others. The sensations, though the original foundation of the whole, come to be looked upon as a sort of accident depending on us, and the possibilities as much more real than the actual sensations, nay, as the very realities of which these are only the representations, appearances, or effects. When this state of mind has been arrived at, then, and from that time forward, we are never conscious of a present sensation without instantaneously referring it to some one of the groups of possibilities into which a sensation of that particular description enters; and if we do not yet know to what group to refer it, we at least feel an irresistible conviction that it must belong to some group or other; *i. e.* that its presence proves the existence, here and now, of a great number and variety of possibilities of sensation, without which it would not have been. The whole set of sensations as possible, form a permanent background to any one or more of them that are, at a given moment, actual; and the possibilities are conceived as standing to the actual sensations in the relation of a cause to its effects, or of canvas to the figures painted on it, or of a root to the trunk, leaves, and flowers, or of a substratum to that which is spread over it, or, in transcendental language, of Matter to Form.

When this point has been reached, the Permanent Possibilities in question have assumed such unlikeness of aspect, and such difference of position relatively to us, from any sensations, that it would be contrary to all we know of the constitution of human nature that they should not be conceived as, and believed to be, at least as different from sensations as

sensations are from one another. Their groundwork in sensation is forgotten, and they are supposed to be something intrinsically distinct from it. We can withdraw ourselves from any of our (external) sensations, or we can be withdrawn from them by some other agency. But though the sensations cease, the possibilities remain in existence; they are independent of our will, our presence, and everything which belongs to us. We find, too, that they belong as much to other human or sentient beings as to ourselves. We find other people grounding their expectations and conduct upon the same permanent possibilities on which we ground ours. But we do not find them experiencing the same actual sensations. Other people do not have our sensations exactly when and as we have them: but they have our possibilities of sensation; whatever indicates a present possibility of sensations to ourselves, indicates a present possibility of similar sensations to them, except so far as their organs of sensation may vary from the type of ours. This puts the final seal to our conception of the groups of possibilities as the fundamental reality in Nature. The permanent possibilities are common to us and to our fellow-creatures; the actual sensations are not. That which other people become aware of when, and on the same grounds as I do, seems more real to me than that which they do not know of unless I tell them. The world of Possible Sensations succeeding one another according to laws, is as much in other beings as it is in me; it has therefore an existence outside me; it is an External World.

If this explanation of the origin and growth of the idea of Matter, or External Nature, contains nothing at variance with natural laws, it is at least an admissible supposition, that the element of Non-ego which Sir W. Hamilton regards as an original datum of consciousness, and which we certainly do find in our present consciousness, may not be one of its primitive elements — may not have existed at all in its first manifestations. But if this supposition be admissible, it ought, on Sir W. Hamilton's principles, to be received as true. The first of the laws laid down by him for the interpretation of Consciousness, the law (as he terms it) of Parcimony, forbids to suppose

an original principle of our nature in order to account for phænomena which admit of possible explanation from known causes. If the supposed ingredient of consciousness be one which might grow up (though we cannot prove that it did grow up) through later experience; and if, when it had so grown up, it would, by known laws of our nature, appear as completely intuitive as our sensations themselves; we are bound, according to Sir W. Hamilton's and all sound philosophy, to assign to it that origin. Where there is a known cause adequate to account for a phænomenon, there is no justification for ascribing it to an unknown one. And what evidence does Consciousness furnish of the intuitiveness of an impression, except instantaneousness, apparent simplicity, and unconsciousness on our part of how the impression came into our minds? These features can only prove the impression to be intuitive, on the hypothesis that there are no means of accounting for them otherwise. If they not only might, but naturally would, exist, even on the supposition that it is not intuitive, we must accept the conclusion to which we are led by the Psychological Method, and which the Introspective Method furnishes absolutely nothing to contradict.

Matter, then, may be defined, a Permanent Possibility of Sensation. If I am asked whether I believe in matter, I ask whether the questioner accepts this definition of it. If he does, I believe in matter: and so do all Berkeleians. In any other sense than this, I do not. But I affirm with confidence, that this conception of Matter includes the whole meaning attached to it by the common world, apart from philosophical, and sometimes from theological, theories. The reliance of mankind on the real existence of visible and tangible objects, means reliance on the reality and permanence of Possibilities of visual and tactual sensations, when no such sensations are actually experienced. We are warranted in believing that this is the meaning of Matter in the minds of many of its most esteemed metaphysical champions, though they themselves would not admit as much: for example, of Reid, Stewart, and Brown. For these three philosophers alleged that all mankind, including Berkeley and Hume, really believed in Matter, inasmuch as unless they did, they

would not have turned aside to save themselves from running against a post. Now, all which this manœuvre really proved is, that they believed in Permanent Possibilities of Sensation. We have therefore the sanction of these three eminent defenders of the existence of matter, for affirming, that to believe in Permanent Possibilities of Sensation *is* believing in Matter. It is hardly necessary, after such authorities, to mention Dr. Johnson, or any one else who resorts to the *argumentum baculinum* of knocking a stick against the ground. Sir W. Hamilton, a far subtler thinker than any of these, never reasons in this manner. He never supposes that a disbeliever in what he means by Matter, ought in consistency to act in any different mode from those who believe in it. He knew that the belief on which all the practical consequences depend, is the belief in Permanent Possibilities of Sensation, and that if nobody believed in a material universe in any other sense, life would go on exactly as it now does. He, however, did believe in more than this, but, I think, only because it had never occurred to him that mere Possibilities of Sensation could, to our artificialized consciousness, present the character of objectivity which, as we have now shown, they not only can, but unless the known laws of the human mind were suspended, must necessarily, present.

Perhaps it may be objected, that the very possibility of framing such a notion of Matter as Sir W. Hamilton's — the capacity in the human mind of imagining an external world which is anything more than what the Psychological Theory makes it — amounts to a disproof of the theory. If (it may be said) we had no revelation in consciousness, of a world which is not in some way or other identified with sensation, we should be unable to have the notion of such a world. If the only ideas we had of external objects were ideas of our sensations, supplemented by an acquired notion of permanent possibilities of sensation, we must (it is thought) be incapable of conceiving, and therefore still more incapable of fancying that we perceive, things which are not sensations at all. It being evident, however, that some philosophers believe this, and it being maintainable that the mass of mankind do so, the existence of a perdurable basis of

sensations, distinct from sensations themselves, is proved, it might be said, by the possibility of believing it.

Let me first restate what I apprehend the belief to be. We believe that we perceive a something closely related to all our sensations, but different from those which we are feeling at any particular minute; and distinguished from sensations altogether, by being permanent and always the same, while these are fugitive, variable, and alternately displace one another. But these attributes of the object of perception are properties belonging to all the possibilities of sensation which experience guarantees. The belief in such permanent possibilities seems to me to include all that is essential or characteristic in the belief in substance. I believe that Calcutta exists, though I do not perceive it, and that it would still exist if every percipient inhabitant were suddenly to leave the place, or be struck dead. But when I analyze the belief, all I find in it is, that were these events to take place, the Permanent Possibility of Sensation which I call Calcutta would still remain; that if I were suddenly transported to the banks of the Hoogly, I should still have the sensations which, if now present, would lead me to affirm that Calcutta exists here and now. We may infer, therefore, that both philosophers and the world at large, when they think of matter, conceive it really as a Permanent Possibility of Sensation. But the majority of philosophers fancy that it is something more; and the world at large, though they have really, as I conceive, nothing in their minds but a Permanent Possibility of Sensation, would, if asked the question, undoubtedly agree with the philosophers: and though this is sufficiently explained by the tendency of the human mind to infer difference of things from difference of names, I acknowledge the obligation of showing how it can be possible to believe in an existence transcending all possibilities of sensation, unless on the hypothesis that such an existence actually is, and that we actually perceive it.

The explanation, however, is not difficult. It is an admitted fact, that we are capable of all conceptions which can be formed by generalizing from the observed laws of our sensations. Whatever relation we find to exist between any one of our sensations

and something different from *it*, that same relation we have no difficulty in conceiving to exist between the sum of all our sensations and something different from *them*. The differences which our consciousness recognizes between one sensation and another, give us the general notion of difference, and inseparably associate with every sensation we have, the feeling of its being different from other things; and when once this association has been formed, we can no longer conceive anything, without being able, and even being compelled, to form also the conception of something different from it. This familiarity with the idea of something different from *each* thing we know, makes it natural and easy to form the notion of something different from *all* things that we know, collectively as well as individually. It is true we can form no conception of what such a thing can be; our notion of it is merely negative; but the idea of substance, apart from the impressions it makes on our senses, *is* a merely negative one. There is thus no psychological obstacle to our forming the notion of a something which is neither a sensation nor a possibility of sensation, even if our consciousness does not testify to it; and nothing is more likely than that the Permanent Possibilities of Sensation, to which our consciousness does testify, should be confounded in our minds with this imaginary conception. All experience attests the strength of the tendency to mistake mental abstractions, even negative ones, for substantive realities; and the Permanent Possibilities of Sensation which experience guarantees, are so extremely unlike in many of their properties to actual sensations, that since we are capable of imagining something which transcends sensation, there is a great natural probability that we should suppose these to be it.

But this natural probability is converted into certainty, when we take into consideration that universal law of our experience which is termed the law of Causation, and which makes us unable to conceive the beginning of anything without an antecedent condition, or Cause. The case of Causation is one of the most marked of all the cases in which we extend to the sum total of our consciousness, a notion derived from its parts. It is a striking example of our power to conceive, and our tendency

to believe, that a relation which subsists between every individual item of our experience and some other item, subsists also between our experience as a whole, and something not within the sphere of experience. By this extension to the sum of all our experiences, of the internal relations obtaining between its several parts, we are led to consider sensation itself — aggregate whole of our sensations as deriving its origin from antecedent existences transcending sensation. That we should do this, is a consequence of the particular character of the uniform sequences, which experience discloses to us among our sensations. As already remarked, the constant antecedent of a sensation is seldom another sensation, or set of sensations, actually felt. It is much oftener the existence of a group of possibilities, not necessarily including any actual sensations, except such as are required to show that the possibilities are really present. Nor are actual sensations indispensable even for this purpose; for the presence of the object (which is nothing more than the immediate presence of the possibilities) may be made known to us by the very sensation which we refer to it as its effect. Thus, the real antecedent of an effect — the only antecedent which, being invariable and unconditional, we consider to be the cause — may be, not any sensation really felt, but solely the presence, at that or the immediately preceding moment, of a group of possibilities of sensation. Hence it is not with sensations as actually experienced, but with their Permanent Possibilities, that the idea of Cause comes to be identified: and we, by one and the same process, acquire the habit of regarding Sensation in general, like all our individual sensations, as an Effect, and also that of conceiving as the causes of most of our individual sensations, not other sensations, but general possibilities of sensation. If all these considerations put together do not completely explain and account for our conceiving these Possibilities as a class of independent and substantive entities, I know not what psychological analysis can be conclusive.

It may perhaps be said, that the preceding theory gives, indeed, some account of the idea of Permanent Existence which forms part of our conception of matter, but gives no explanation

of our believing these permanent objects to be external, or out of ourselves. I apprehend, on the contrary, that the very idea of anything out of ourselves is derived solely from the knowledge experience gives us of the Permanent Possibilities. Our sensations we carry with us wherever we go, and they never exist where we are not; but when we change our place we do not carry away with us the Permanent Possibilities of Sensation: they remain until we return, or arise and cease under conditions with which our presence has in general nothing to do. And more than all — they are, and will be after we have ceased to feel, Permanent Possibilities of Sensation to other beings than ourselves. Thus our actual sensations and the permanent possibilities of sensation, stand out in obtrusive contrast to one another: and when the idea of Cause has been acquired, and extended by generalization from the parts of our experience to its aggregate whole, nothing can be more natural than that the Permanent Possibilities should be classed by us as existences generically distinct from our sensations, but of which our sensations are the effect.

The same theory which accounts for our ascribing to an aggregate of possibilities of sensation, a permanent existence which our sensations themselves do not possess, and consequently a greater reality than belongs to our sensations, also explains our attributing greater objectivity to the Primary Qualities of bodies than to the Secondary. For the sensations which correspond to what are called the Primary Qualities (as soon at least as we come to apprehend them by two senses, the eye as well as the touch) are always present when any part of the group is so. But colors, tastes, smells, and the like, being, in comparison, fugacious, are not, in the same degree, conceived as being always there, even when nobody is present to perceive them. The sensations answering to the Secondary Qualities are only occasional, those to the primary, constant. The Secondary, moreover, vary with different persons, and with the temporary sensibility of our organs: the Primary, when perceived at all, are, as far as we know, the same to all persons and at all times.

HERBERT SPENCER

(1820–1903)

FIRST PRINCIPLES OF A NEW SYSTEM OF PHILOSOPHY*

PART I.—THE UNKNOWABLE

§ 31. SOME do indeed allege that though the Ultimate Cause of things cannot really be conceived by us as having specified attributes, it is yet incumbent upon us to assert those attributes. Though the forms of our consciousness are such that the Absolute cannot in any manner or degree be brought within them, we are nevertheless told that we must represent the Absolute to ourselves as having certain characters. As writes Mr. Mansel, in the work† from which I have already quoted largely—"It is our duty, then, to think of God as personal; and it is our duty to believe that He is infinite."

Now if there be any meaning in the foregoing arguments, duty requires us neither to affirm nor deny personality. Our duty is to submit ourselves to the established limits of our intelligence, and not perversely to rebel against them. Let those who can, believe that there is eternal war set between our intellectual faculties and our moral obligations. I, for one, admit no such radical vice in the constitution of things.

This which to most will seem an essentially irreligious position, is an essentially religious one—nay is *the* religious one, to which, as already shown, all others are but approximations. In the estimate it implies of the Ultimate Cause, it does not fall short of the alternative position, but exceeds it. Those who espouse this alternative position, assume that the choice is between personality and something lower than personality; whereas the choice is rather between personality and some-

* First edition, London, Williams & Norgate, 1862. Reprinted here from 6th American copyright edition, New York, D. Appleton & Co, 1903.

† H. L. Mansel, *Limits of Religious Thought*, London, 1858.

thing that may be higher. Is it not possible that there is a mode of being as much transcending Intelligence and Will, as these transcend mechanical motion? Doubtless we are totally unable to imagine any such higher mode of being. But this is not a reason for questioning its existence; it is rather the reverse. Have we not seen how utterly unable our minds are to form even an approach to a conception of that which underlies all phenomena? Is it not proved that we fail because of the incompetency of the Conditioned to grasp the Unconditioned? Does it not follow that the Ultimate Cause cannot in any respect be conceived because it is in every respect greater than can be conceived? And may we not therefore rightly refrain from assigning to it any attributes whatever, on the ground that such attributes, derived as they must be from our own natures, are not elevations but degradations? Indeed it seems strange that men should suppose the highest worship to lie in assimilating the object of their worship to themselves. Not in asserting a transcendent difference, but in asserting a certain likeness, consists the element of their creed which they think essential. It is true that from the time when the rudest savages imagined the causes of things to be persons like themselves but invisible, down to our own time, the degree of assumed likeness has been diminishing. But though a bodily form and substance similar to that of man, has long since ceased, among cultivated races, to be a literally-conceived attribute of the Ultimate Cause — though the grosser human desires have been also rejected as unfit elements of the conception — though there is some hesitation in ascribing even the higher human feelings, save in idealized shapes; yet it is still thought not only proper, but imperative, to ascribe the most abstract qualities of our nature. To think of the Creative Power as in all respects anthropomorphous, is now considered impious by men who yet hold themselves bound to think of the Creative Power as in some respects anthropomorphous; and who do not see that the one proceeding is but an evanescent form of the other. And then, most marvellous of all, this course is persisted in even by those who contend that we are wholly unable to frame any conception whatever

of the Creative Power. After it has been shown that every sup position respecting the genesis of the Universe commits us to alternative impossibilities of thought — after it has been shown why, by the very constitution of our minds, we are debarred from thinking of the Absolute; it is still asserted that we ought to think of the Absolute thus and thus. In all ways we find thrust on us the truth, that we are not permitted to know — nay are not even permitted to conceive — that Reality which is behind the veil of Appearance; and yet it is said to be our duty to believe (and in so far to conceive) that this Reality exists in a certain defined manner. Shall we call this reverence? or shall we call it the reverse?

Volumes might be written upon the impiety of the pious. Through the printed and spoken thoughts of religious teachers, may everywhere be traced a professed familiarity with the ultimate mystery of things, which, to say the least of it, is anything but congruous with the accompanying expressions of humility. The attitude thus assumed can be fitly represented only by further developing a simile long current in theological controversies — the simile of the watch. If for a moment we made the grotesque supposition that the tickings and other movements of a watch constituted a kind of consciousness; and that a watch possessed of such a consciousness, insisted on regarding the watchmaker's actions as determined like its own by springs and escapements; we should simply complete a parallel of which religious teachers think much. And were we to suppose that a watch not only formulated the cause of its existence in these mechanical terms, but held that watches were bound out of reverence so to formulate this cause, and even vituperated, as atheistic watches, any that did not venture so to formulate it; we should merely illustrate the presumption of theologians by carrying their own argument a step further. A few extracts will bring home to the reader the justice of this comparison. We are told, for example, by one of high repute among religious thinkers, that the Universe is "the manifestation and abode of a Free Mind, like our own; embodying His personal thought in its adjustments, realizing His own idea

in its phenomena, just as we express our inner faculty and character through the natural language of an external life. In this view, we interpret Nature by Humanity; we find the key to her aspects in such purposes and affections as our own consciousness enables us to conceive; we look everywhere for physical signals of an ever-living Will; and decipher the universe as the autobiography of an Infinite Spirit, repeating itself in miniature within our Finite Spirit." The same writer goes still further. He not only thus parallels the assimilation of the watch-maker to the watch,—he not only thinks the created can "decipher" "the autobiography" of the Creating; but he asserts that the necessary limits to the one are necessary limits to the other. The primary qualities of bodies, he says, "belong eternally to the material datum objective to God" and control his acts; while the secondary ones are "products of pure Inventive Reason and Determining Will" — constitute "the realm of Divine originality." . . . "While on this Secondary field His Mind and ours are thus contrasted, they meet in resemblance again upon the Primary; for the evolutions of deductive Reason there is but one track possible to all intelligences; no *merum arbitrium* can interchange the false and true, or make more than one geometry, one scheme of pure physics, for all worlds; and the Omnipotent Architect Himself, in realizing the Kosmical conception, in shaping the orbits out of immensity and determining seasons out of eternity, could but follow the laws of curvature, measure and proportion." That is to say, the Ultimate Cause is like a human mechanic, not only as "shaping" the "material datum objective to" Him, but also as being obliged to conform to the necessary properties of that datum. Nor is this all. There follows some account of "the Divine psychology," to the extent of saying that "we learn" "the character of God — the order of affections in Him" from "the distribution of authority in the hierarchy of our impulses." In other words, it is alleged that the Ultimate Cause has desires that are to be classed as higher and lower like our own.[1] Every

[1] These extracts are from an article entitled "Nature and God," published in the *National Review* for October, 1860, by Dr. Martineau.

one has heard of the king who wished he had been present at the creation of the world, that he might have given good advice. He was humble, however, compared with those who profess to understand not only the relation of the Creating to the created, but also how the Creating is constituted. And yet this transcendent audacity, which thinks to penetrate the secrets of the Power manifested through all existence — nay, even to stand behind that Power and note the conditions to its action— this it is which passes current as piety! May we not affirm that a sincere recognition of the truth that our own and all other existence is a mystery absolutely beyond our comprehension, contains more of true religion than all the dogmatic theology ever written?

Meanwhile let us recognize whatever of permanent good there is in these persistent attempts to frame conceptions of that which cannot be conceived. From the beginning it has been only through the successive failures of such conceptions to satisfy the mind, that higher and higher ones have been gradually reached; and doubtless, the conceptions now current are indispensable as transitional modes of thought. Even more than this may be willingly conceded. It is possible, nay probable, that under their most abstract forms, ideas of this order will always continue to occupy the background of our consciousness. Very likely there will ever remain a need to give shape to that indefinite sense of an Ultimate Existence, which forms the basis of our intelligence. We shall always be under the necessity of contemplating it as *some* mode of being; that is, of representing it to ourselves in *some* form of thought, however vague. And we shall not err in doing this so long as we treat every notion we thus frame as merely a symbol. Perhaps the constant formation of such symbols and constant rejection of them as inadequate, may be hereafter, as it has hitherto been, a means of discipline. Perpetually to construct ideas requiring the utmost stretch of our faculties, and perpetually to find that such ideas must be abandoned as futile imaginations, may realize to us more fully than any other course, the greatness of that which we vainly strive to grasp. By continually seeking

to know and being continually thrown back with a deepened conviction of the impossibility of knowing, we may keep alive the consciousness that it is alike our highest wisdom and our highest duty to regard that through which all things exist as The Unknowable.

PART II.—THE KNOWABLE

CHAPTER I. PHILOSOPHY DEFINED

§ 35. After concluding that we cannot know the ultimate nature of that which is manifested to us, there arise the questions — What is it that we know? In what sense do we know it? And in what consists our highest knowledge of it? Having repudiated as impossible the Philosophy which professes to formulate Being as distinguished from Appearance, it becomes needful to say that Philosophy truly is — not simply to specify its limits, but to specify its character within those limits. Given the sphere to which human intelligence is restricted, and there remains to define that product of human intelligence which may still be called Philosophy.

Here, we may fitly avail ourselves of the method followed at the outset — that of separating from conceptions which are partially or mainly erroneous, the element of truth they contain. As in the chapter on "Religion and Science," it was inferred that religious beliefs, wrong as they may severally be, nevertheless probably each contain an essential verity, and that this is most likely common to them all; so in this place it is to be inferred that past and present beliefs respecting the nature of Philosophy, are none of them wholly false, and that that in which they are true is that in which they agree. We have here, then, to do what was done there — to compare all opinions of the same genus; to set aside as more or less discrediting one another those elements in which such opinions differ; to observe what remains after the discordant components have been cancelled; and to find for this remaining component that expression which holds true throughout its divergent forms.

§ 36. Earlier speculations being passed over, we see that among the Greeks, before there had arisen any notion of Philosophy in general, those particular forms of it from which the general notion was to arise, were hypotheses respecting some universal principle which was the essence of all kinds of being. To the question — "What is that *invariable existence* of which these are *variable states?*" there were sundry answers — Water, Air, Fire. A class of suppositions of this all-embracing character having been propounded, it became possible for Pythagoras to conceive of Philosophy in the abstract, as knowledge the most remote from practical ends; and to define it as "knowledge of immaterial and eternal things:" "the cause of the material existence of things" being, in his view, Number. Thereafter, was continued a pursuit of Philosophy as some deepest explanation of the Universe, assumed to be possible, whether actually reached in any case or not. And in the course of this pursuit, various such interpretations were given as that "One is the beginning of all things;" that "the One is God;" that "the One is Finite;" that "the One is Infinite;" that "Intelligence is the governing principle of things;" and so on. From all which it is plain that the knowledge supposed to constitute Philosophy, differed from other knowledge in its exhaustive character. After the Sceptics had shaken men's faith in their powers of reaching such transcendent knowledge, there grew up a much-restricted conception of Philosophy. Under Socrates, and still more under the Stoics, Philosophy became little else than the doctrine of right living. Not indeed that the proper ruling of conduct, as conceived by sundry of the later Greek thinkers to constitute the subject-matter of Philosophy, answered to what was popularly understood by the proper ruling of conduct. The injunctions of Zeno were not of the same class as those which guided men in their daily observances, sacrifices, customs, all having more or less of religious sanction; but they were principles of action enunciated without reference to times, or persons, or special cases. What, then, was the constant element in these unlike ideas of Philosophy held by the ancients? Clearly this last idea agrees with the first, in implying that Philosophy seeks

for wide and deep truths, as distinguished from the multitudinous detailed truths which the surfaces of things and actions present.

By comparing the conceptions of Philosophy that have been current in modern times, we get a like result. The disciples of Schelling and Fichte join the Hegelian in ridiculing the so-called Philosophy which has been current in England. Not without reason, they laugh on reading of "Philosophical instruments;" and would deny that any one of the papers in the *Philosophical Transactions* has the least claim to come under such a title. Retaliating on their critics, the English may, and most of them do, reject as absurd the imagined Philosophy of the German schools. They hold that whether consciousness does or does not vouch for the existence of something beyond itself, it at any rate cannot comprehend that something; and that hence, in so far as any Philosophy professes to be an Ontology, it is false. These two views cancel one another over large parts of their areas. The English criticism on the Germans, cuts off from Philosophy all that is regarded as absolute knowledge. The German criticism on the English tacitly implies that if Philosophy is limited to the relative, it is at any rate not concerned with those aspects of the relative which are embodied in mathematical formulæ, in accounts of physical researches, in chemical analyses, or in descriptions of species and reports of physiological experiments. Now what has the too-wide German conception in common with the conception current among English men of science; which, narrow and crude as it is, is not so narrow and crude as their misuse of the word philosophical indicates? The two have this in common, that neither Germans nor English apply the word to unsystematized knowledge — to knowledge quite un-coördinated with other knowledge. Even the most limited specialist would not describe as philosophical, an essay which, dealing wholly with details, manifested no perception of the bearings of those details on wider truths.

The vague idea of Philosophy thus raised may be rendered more definite by comparing what has been known in England as Natural Philosophy with that development of it called Posi-

tive Philosophy. Though, as M. Comte admits, the two consist of knowledge essentially the same in kind; yet, by having put this kind of knowledge into a more coherent form, he has given it more of that character to which the term philosophical is applied. Without saying anything about the character of his co-ordination, it must be conceded that, by the fact of its co-ordination, the body of knowledge organized by him has a better claim to the title Philosophy, than has the comparatively unorganized body of knowledge named Natural Philosophy.

If subdivisions of Philosophy be contrasted with one another, or with the whole, the same implication comes out. Moral Philosophy and Political Philosophy, agree with Philosophy at large in the comprehensiveness of their reasonings and conclusions. Though under the head Moral Philosophy, we treat of human actions as right or wrong, we do not include special directions for behaviour in school, at table, or on the exchange; and though Political Philosophy has for its topic the conduct of men in their public relations, it does not concern itself with modes of voting or details of administration. Both of these sections of Philosophy contemplate particular instances only as illustrating truths of wide application.

§ 37. Thus every one of these conceptions implies belief in a possible way of knowing things more completely than they are known through simple experiences, mechanically accumulated in memory or heaped up in cyclopædias. Though in the extent of the sphere which they have supposed Philosophy to fill, men have differed and still differ very widely; yet there is a real if unavowed agreement among them in signifying by this title a knowledge which transcends ordinary knowledge. That which remains as the common element in these conceptions of Philosophy, after the elimination of their discordant elements, is — *knowledge of the highest degree of generality*. We see this tacitly asserted by the simultaneous inclusion of God, Nature, and Man, within its scope; or still more distinctly by the division of Philosophy as a whole into Theological, Physical, Ethical, &c. For that which characterizes the genus of which these are

species, must be something more general than that which distinguishes any one species.

What must be the shape here given to this conception? Though persistently conscious of a Power manifested to us, we have abandoned as futile the attempt to learn anything respecting that Power, and so have shut out Philosophy from much of the domain supposed to belong to it. The domain left is that occupied by Science. Science concerns itself with the co-existences and sequences among phenomena; grouping these at first into generalizations of a simple or low order, and rising gradually to higher and more extended generalizations. But if so, where remains any subject-matter for Philosophy?

The reply is — Philosophy may still properly be the title retained for knowledge of the highest generality. Science means merely the family of the Sciences — stands for nothing more than the sum of knowledge formed of their contributions; and ignores the knowledge constituted by the *fusion* of these contributions into a whole. As usage has defined it, Science consists of truths existing more or less separated and does not recognize these truths as entirely integrated. An illustration will make the difference clear.

If we ascribe the flow of a river to the same force which causes the fall of a stone, we make a statement that belongs to a certain division of Science. If, to explain how gravitation produces this movement in a direction almost horizontal, we cite the law that fluids subject to mechanical forces exert re-active forces which are equal in all directions, we formulate a wider truth, containing the scientific interpretations of many other phenomena; as those presented by the fountain, the hydraulic press, the steam-engine, the air-pump. And when this proposition, extending only to the dynamics of fluids, is merged in a proposition of general dynamics, comprehending the laws of movement of solids as well as of fluids, there is reached a yet higher truth; but still a truth that comes wholly within the realm of Science. Again, looking around at Birds and Mammals, suppose we say that air-breathing animals are hot-blooded; and that then, remembering how Reptiles, which also breathe air,

are not much warmer than their media, we say, more truly, that animals (bulks being equal) have temperatures proportionate to the quantities of air they breathe; and that then, calling to mind certain large fish, as the tunny, which maintain a heat considerably above that of the water they swim in, we further correct the generalization by saying that the temperature varies as the rate of oxygenation of the blood; and that then, modifying the statement to meet other criticisms, we finally assert the relation to be between the amount of heat and the amount of molecular change — supposing we do all this, we state scientific truths that are successively wider and more complete, but truths which, to the last, remain purely scientific. Once more if, guided by mercantile experiences, we reach the conclusions that prices rise when the demand exceeds the supply; that commodities flow from places where they are abundant to places where they are scarce; that the industries of different localities are determined in their kinds mainly by the facilities which the localities afford for them; and if, studying these generalizations of political economy, we trace them all to the truth that each man seeks satisfaction for his desires in ways costing the smallest efforts — such social phenomena being *resultants* of individual actions so guided; we are still dealing with the propositions of Science only.

How, then, is Philosophy constituted? It is constituted by carrying a stage further the process indicated. So long as these truths are known only apart and regarded as independent, even the most general of them cannot without laxity of speech be called philosophical. But when, having been severally reduced to a mechanical axiom, a principle of molecular physics, and a law of social action, they are contemplated together as corollaries of some ultimate truth, then we rise to the kind of knowledge which constitutes Philosophy proper.

The truths of Philosophy thus bear the same relation to the highest scientific truths, that each of these bears to lower scientific truths. As each widest generalization of Science comprehends and consolidates the narrower generalizations of its own division; so the generalizations of Philosophy comprehend and

consolidate the widest generalizations of Science. It is therefore a knowledge the extreme opposite in kind to that which experience first accumulates. It is the final product of that process which begins with a mere colligation of crude observations, goes on establishing propositions that are broader and more separated from particular cases, and ends in universal propositions. Or to bring the definition to its simplest and clearest form: — Knowledge of the lowest kind is *un-unified* knowledge; Science is *partially-unified* knowledge; Philosophy is *completely-unified* knowledge.

CHAPTERS XIV–XVII. THE LAW OF EVOLUTION

[Ch. XIV.] § 107. Deduction has now to be verified by induction. Thus far the argument has been that all sensible existences *must*, in some way or other and at some time or other, reach their concrete shapes through processes of concentration; and the facts named have been named merely to clarify the perception of this necessity. But we have not arrived at that unified knowledge constituting Philosophy, until we have seen how existences of all orders *do* exhibit a progressive integration of Matter and accompanying loss of Motion. Tracing, so far as we may by observation and inference, the objects dealt with by the Astronomer and the Geologist, as well as those which Biology, Psychology, and Sociology treat of, we have to consider what direct proof there is that the Cosmos, in general and in detail, conforms to this law.

Throughout the classes of facts successively contemplated, attention will be directed not so much to the truth that every aggregate has undergone, or is undergoing, integration, as to the further truth that in every more or less separate part of every aggregate, integration has been, or is, in progress. Instead of simple wholes and wholes of which the complexity has been ignored, we have now to deal with wholes as they actually exist — mostly made up of many members combined in many ways. And in them we shall have to trace the transformation under several forms — a passage of the total mass from a more

diffused to a more consolidated state; a concurrent similar passage in every portion of it that comes to have a distinguishable individuality; and a simultaneous increase of combination among such individualized portions.

§ 111 . . . Though evolutions of the various products of social activities cannot be said directly to exemplify the integration of matter and dissipation of motion, yet they exemplify it indirectly. For the progress of Language, of Science, and of the Arts, industrial and æsthetic, is an objective register of subjective changes. Alterations of structure in human beings, and concomitant alterations of structure in aggregates of human beings, jointly produce corresponding alterations of structure in all those things which humanity creates. As in the changed impress on the wax, we read a change in the seal; so in the integrations of advancing Language, Science, and Art, we see reflected certain integrations of advancing human structure, individual and social. A section must be devoted to each group.

§ 112. Among uncivilized races, the many-syllabled names of not uncommon objects, as well as the descriptive character of proper names, show that the words used for the less-familiar things are formed by uniting the words used for the more-familiar things. This process of composition is sometimes found in its incipient stage — a stage in which the component words are temporarily joined to signify some un-named object, and, from lack of frequent use, do not permanently cohere. But in most inferior languages, the process of "agglutination" has gone far enough to produce some stability in the compound words: there is a manifest integration. How small is this integration, however, in comparison with that reached in well-developed languages, is shown both by the great length of the compound words used for common things and acts, and by the separableness of their elements. Certain North-American tongues illustrate this very well. In a Ricaree vocabulary extending to fifty names of common objects, which in English are nearly all expressed by single syllables, there is not one monosyllabic word. Things so familiar to these hunting tribes as

dog and *bow*, are, in the Pawnee language, *ashakish* and *teeragish;* the *hand* and the *eyes* are respectively *iksheeree* and *keereekoo;* for *day* the term is *shakoorooeeshairet*, and for *devil* it is *tsaheekshkakooraiwah;* while the numerals are composed of from two syllables up to five, and in Ricaree up to seven. That the great length of these familiar words implies low development, and that in the formation of higher languages out of lower there is a gradual integration, which reduces the polysyllables to dissyllables and monosyllables, is an inference confirmed by the history of our own language. Anglo-Saxon *steorra* has been in course of time consolidated into English *star*, *mona* into *moon*, and *nama* into *name*. The transition through semi-Saxon is clearly traceable. *Sunu* became in semi-Saxon *sune*, and in English *son:* the final *e* of *sune* being an evanescent form of the original *u*. The change from the Anglo-Saxon plural, formed by the distinct syllable *as*, to our plural, formed by the appended consonant *s*, shows the same thing: *smithas* in becoming *smiths*, and *endas* in becoming *ends*, illustrate progressive coalescence. So, too, does the disappearance of the terminal *an* in the infinitive mood of verbs; as shown in the transition from the Anglo-Saxon *cuman* to the semi-Saxon *cumme*, and to the English *come*. Moreover the process has been slowly going on, even since what we distinguish as English was formed. In Elizabeth's time, verbs were still frequently pluralized by the addition of *en* — *we tell* was *we tellen;* and in some places this form of speech may even now be heard. In like manner the terminal *ed* of the past tense, has united with the word it modifies. *Burn-ed* has in pronunciation become *burnt;* and even in writing the terminal *t* has in some cases taken the place of the *ed*. Only where antique forms in general are adhered to, as in the church-service, is the distinctness of this inflection still maintained. Further, we see that the compound vowels have been in many cases fused into single vowels. That in *bread* the *e* and *a* were originally both sounded, is proved by the fact that they are still so sounded in parts where old habits linger. We, however, have contracted the pronunciation into *bred ;* and we have made like changes in many other common words. Lastly,

let it be noted that where the repetition is greatest, the process is carried furthest; as instance the contraction of *lord* (originally *hlaford*) into *lud* in the mouths of barristers; and, still better, the coalescence of *God be with you* into *Good bye.*

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§ 113. The history of Science presents facts of the same meaning at every step. Indeed the integration of groups of like entities and like relations, constitutes the most conspicuous part of scientific progress. A glance at the classificatory sciences shows that the confused incoherent aggregations which the vulgar make of natural objects, are gradually rendered complete and compact, and bound up into groups within groups. While, instead of considering all marine creatures as fish, shell-fish, and jelly-fish, Zoölogy establishes among them sub-divisions under the heads *Vertebrata, Annulosa, Mollusca, Cœlenterata,* &c.; and while, in place of the wide and vague assemblage popularly described as "creeping things," it makes the specific classes *Annelida, Myriapoda, Insecta, Arachnida;* it simultaneously gives to these an increasing consolidation. The several species, genera and orders of which each consists, are arranged according to their affinities and tied together under common definitions; at the same time that, by extended observation and rigorous criticism, the previously unknown and undetermined forms are integrated with their respective congeners. Nor is the process less clearly displayed in those sciences which have for their subject-matter, not classified objects but classified relations. Under one of its chief aspects, scientific advance is the advance of generalization; and generalization is uniting into groups all like co-existences and sequences among phenomena. The colligation of many concrete relations into a generalization of the lowest order, exemplifies this process in its simplest form; and it is again exemplified in a more complex form by the colligation of these lowest generalizations into higher ones, and these into still higher ones. Year by year connexions are established among orders of phenomena that appear unallied; and these connexions, multiplying and strengthening, gradually bring the seemingly unallied orders under a common bond. When, for example

Humboldt quotes the observation of the Swiss — "It is going to rain because we hear the murmur of the torrents nearer," — when he recognizes the kinship between this and an observation of his own, that the cataracts of the Orinoco are heard at a greater distance by night than by day — when he notes the analogy between these facts and the fact that the unusual visibility of remote objects is also an indication of coming rain — and when he points out that the common cause of these variations is the smaller hindrance offered to the passage of both light and sound, by media which are comparatively homogeneous, either in temperature or hygrometric state; he helps in bringing under one generalization certain traits of lights and certain traits of sound. Experiments having shown that light and sound conform to like laws of reflection and refraction, the conclusion that they are both produced by undulations — though undulations of unlike kinds — gains probability: there is an incipient integration of two classes of facts between which no connexion was suspected in times past. A still more decided integration has been of late taking place between the once independent sub-sciences of Electricity, Magnetism, and Light.

The process will manifestly be carried much further. Such propositions as those set forth in preceding chapters, on "The Persistence of Force," "The Transformation and Equivalence of Forces," "The Direction of Motion," and "The Rhythm of Motion," unite within single bonds phenomena belonging to all orders of existences. And if there is such a thing as that which we here understand by Philosophy, there must eventually be reached a universal integration.

§ 114. Nor do the industrial and æsthetic Arts fail to supply us with equally conclusive evidence. The progress from small and simple tools, to complex and large machines, is a progress in integration. Among what are classed as the mechanical powers, the advance from the lever to the wheel-and-axle is an advance from a simple agent to an agent made up of several simple ones. On comparing the wheel-and-axle, or any of the mechanical appliances used in early times with those used now,

we see that in each of our machines several of the primitive machines are united. A modern apparatus for spinning or weaving, for making stockings or lace, contains not simply a lever, an inclined plane, a screw, a wheel-and-axle, joined together, but several of each — all made into a whole. Again, in early ages, when horse-power and man-power were alone employed, the motive agent was not bound up with the tool moved; but the two have now become in many cases joined together. The firebox and boiler of a locomotive are combined with the machinery which the steam works. A much more extensive integration is seen in every factory. Here numerous complicated machines are all connected by driving shafts with the same steam-engine — all united with it into one vast apparatus.

Contrast the mural decorations of the Egyptians and Assyrians with modern historical paintings, and there is manifest an advance in unity of composition — in the subordination of the parts to the whole. One of these ancient frescoes is made up of figures which vary but little in conspicuousness: there are no gradations of light and shade. The same trait may be noted in the tapestries of medieval days. Representing perhaps a hunting scene, one of these contains men, horses, dogs, beasts, birds, trees, and flowers, miscellaneously dispersed: the living objects being variously occupied, and mostly with no apparent consciousness of one another's proximity. But in paintings since produced, faulty as many of them are in this respect, there is always some co-ordination — an arrangement of attitudes, expressions, lights, and colours, such as to combine the parts into a single scene; and the success with which unity of effect is educed from variety of components, is a chief test of merit.

In music, progressive integration is displayed in more numerous ways. The simple cadence embracing but a few notes, which in the chants of savages is monotonously repeated, becomes, among civilized races, a long series of different musical phrases combined into one whole; and so complete is the integration that the melody cannot be broken off in the middle, nor shorn of its final note, without giving us a painful sense of incompleteness. When to the air, a bass, a tenor, and an alto are added; and

when to the different voice-parts there is joined an accompaniment; we see integrations of another order which grow gradually more elaborate. And the process is carried a stage higher when these complex solos, concerted pieces, choruses, and orchestral effects, are combined into the vast *ensemble* of an oratorio or a musical drama.

Once more the Arts of literary delineation, narrative and dramatic, furnish us with illustrations. The tales of primitive times, like those with which the story-tellers of the East still amuse their listeners, are made up of successive occurrences, mostly unnatural, that have no natural connexions: they are but so many separate adventures put together without necessary sequence. But in a good modern work of imagination, the events are the proper products of the characters living under given conditions; and cannot at will be changed in their order or kind, without injuring or destroying the general effect. Further, the characters themselves, which in early fictions play their respective parts without showing how their minds are modified by one another or by the events, are now presented to us as held together by complex moral relations, and as acting and re-acting on one another's natures.

§ 115. Evolution, then, under its primary aspect, is a change from a less coherent form to a more coherent form, consequent on the dissipation of motion and integration of matter. This is the universal process through which sensible existences, individually and as a whole, pass during the ascending halves of their histories. This proves to be a character displayed in those earliest changes which the visible Universe is supposed to have undergone, and in those latest changes which we trace in societies and the products of social life. And, throughout, the unification proceeds in several ways simultaneously.

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[Ch. XV.] § 116. Changes great in their amounts and various in their kinds, which accompany those dealt with in the last chapter, have thus far been ignored; or, if tacitly recognized, have not been avowedly recognized. Integration of each whole has

been described as taking place simultaneously with integration of each of the parts into which it divides itself. But how comes the whole to divide itself into parts? This is a transformation more remarkable than the passage of the whole from an incoherent to a coherent state; and a formula which says nothing about it omits more than half the phenomena to be formulated.

This larger half of the phenomena we have now to treat. Here we are concerned with those secondary re-distributions of matter and motion which go on along with the primary re-distribution. We saw that while in very incoherent aggregates, secondary re-distributions produce but evanescent results, in aggregates that reach and maintain a certain medium state, neither very incoherent nor very coherent, results of a relatively persistent kind are produced — structural modifications. And our next inquiry must be — What is the universal expression for these structural modifications?

Already an implied answer has been given by the title — Compound Evolution. Already in distinguishing as simple Evolution, that integration of matter and dissipation of motion which is unaccompanied by secondary re-distributions, it has been tacitly asserted that where secondary re-distributions occur complexity arises: the mass, instead of remaining uniform, must have become multiform. The proposition is an identical one. To say that along with the primary re-distribution there go secondary re-distributions, is to say that along with the change from a diffused to a concentrated state, there goes a change from a homogeneous state to a heterogeneous state. The components of the mass while becoming integrated have also become differentiated.

§ 121. Advance from the homogeneous to the heterogeneous is clearly displayed in the progress of the latest and most heterogeneous creature — Man. While the peopling of the Earth has been going on, the human organism has grown more heterogeneous among the civilized divisions of the species; and the species, as a whole, has been made more heterogeneous by the multiplication of races and the differentiation of them from one another. In proof of the first of these statements may be cited

the fact that, in the relative development of the limbs, civilized men depart more widely from the general type of the placental mammalia, than do the lowest men. Though often possessing well-developed body and arms, the Papuan has very small legs; thus reminding us of the man-like apes, in which there is no great contrast in size between the hind and fore limbs. But in the European, the greater length and massiveness of the legs has become marked — the fore and hind limbs are relatively more heterogeneous. The greater ratio which the cranial bones bear to the facial bones, illustrates the same truth. Among the *Vertebrata* in general, evolution is marked by an increasing heterogeneity in the vertebral column, and especially in the components of the skull: the higher forms being distinguished by the relatively larger size of the bones which cover the brain, and the relatively smaller size of those which form the jaws, &c. Now this trait, which is stronger in Man than in any other creature, is stronger in the European than in the savage. Moreover, from the greater extent and variety of faculty he exhibits, we may infer that the civilized man has also a more complex or heterogeneous nervous system than the uncivilized man; and, indeed, the fact is in part visible in the increased ratio which his cerebrum bears to the subjacent ganglia. . . .

§ 126. Many further illustrations of the general law throughout social products might be detailed. Going back to the time when the deeds of the god-king, chanted and mimetically represented in dances before his altar, were further narrated in picture-writings on the walls of temples and palaces, and so constituted a rude history, we might trace the development of Literature through phases in which, as in the Hebrew Scriptures, it presents in one work, theology, cosmogony, history, biography, civil law, ethics, poetry; through other phases in which, as in the Iliad, the religious, martial, historical, the epic, dramatic, and lyric elements are similarly commingled; down to its present heterogeneous development, in which its divisions and subdivisions are so numerous and varied as to defy complete classification. Or we might track the unfolding of Science; beginning

with the era in which it was not yet differentiated from Art, and was, in union with Art, the handmaid of Religion; passing through the era in which the sciences were so few and rudimentary, as to be simultaneously cultivated by the same philosophers; and ending with the era in which the genera and species are so multitudinous that few can enumerate them, and no one can adequately grasp even one genus. Or we might do the like with Architecture, with the Drama, with Dress. But doubtless the reader is already weary of illustrations, and my promise has been amply fulfilled. The advance from the simple to the complex, through successive modifications upon modifications, is seen alike in the earliest changes of the Heavens to which we can reason our way back, and in the earliest changes we can inductively establish; it is seen in the geologic and climatic evolution of the Earth, of every individual organism on its surface and in the aggregate of organisms; it is seen in the evolution of Humanity, whether contemplated in the civilized man, or in the assemblage of races; it is seen in the evolution of Society, in respect alike of its political, its religious, and its economical organization; and it is seen in the evolution of those countless concrete and abstract products of human activity, which constitute the environment of our daily life. From the remotest past which Science can fathom, up to the novelties of yesterday, an essential trait of Evolution has been the transformation of the homogeneous into the heterogeneous.

§ 127. So that the general formula arrived at in the last chapter needs supplementing. It is true that Evolution, under its primary aspect, is a change from a less coherent state to a more coherent state, consequent on the dissipation of motion and integration of matter; but this is far from being the whole truth. Along with a passage from the incoherent to the coherent, there goes on a passage from the uniform to the multiform. Such, at least, is the fact wherever Evolution is compound; which it is in the immense majority of cases. While there is a progressing concentration of the aggregate, caused either by the closer approach of the matter within its limits, or by the drawing in of

further matter, or by both; and while the more or less distinct parts into which the aggregate divides and sub-divides are also severally concentrating; these parts are simultaneously becoming unlike — unlike in size, or in form, or in texture, or in composition, or in several or all of these. The same process is exhibited by the whole and by its members. The entire mass is integrating, and at the same time differentiating from other masses; while each member of it is also integrating and at the same time differentiating from other members.

Our conception, then, must unite these characters. As we now understand it, Evolution is definable as a change from an incoherent homogeneity to a coherent heterogeneity, accompanying the dissipation of motion and integration of matter.

[Ch. XVI.] § 129. At the same time that Evolution is a change from the homogeneous to the heterogeneous, it is a change from the indefinite to the definite. Along with an advance from simplicity to complexity, there is an advance from confusion to order — from undetermined arrangement to determined arrangement. Development, no matter of what kind, exhibits not only a multiplication of unlike parts, but an increase in the clearness with which these parts are marked off from one another. And this is the distinction sought. . . .

If advance from the indefinite to the definite is an essential characteristic of Evolution, we shall of course find it everywhere displayed; as in the last chapter we found displayed the advance from the homogeneous to the heterogeneous.

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§ 136. The general advance of Science in definiteness is best shown by the contrast between its qualitative stage and its quantitative stage. At first the facts ascertained were that between such and such phenomena some connexion existed — that the appearances *a* and *b* always occurred together or in succession; but it was known neither what was the nature of the relation between *a* and *b*, nor how much of *a* accompanied so much of *b*. The development of Science has in part been the reduction of these vague connexions to distinct ones. Most relations have

been classed as mechanical, chemical, thermal, electric, magnetic, &c.; and we have learnt to infer the relative amounts of the antecedents and consequents with exactness. Of illustrations, some furnished by physics have been given, and from other sciences plenty may be added. We have ascertained the constituents of numerous compounds which our ancestors could not analyze, and of a far greater number which they never even saw; and the combining equivalents of the elements are now accurately calculated. Physiology shows advance from qualitative to quantitative prevision in ascertaining definite relations between organic products and the materials consumed; as well as in measurement of functions by spirometer and sphygmograph. By Pathology it is displayed in the use of the statistical method of determining the sources of diseases, and the effects of treatment. In Botany and Zoölogy, the numerical comparisons of Floras and Faunas, leading to specific conclusions respecting their sources and distributions, illustrate it. And in Sociology, questionable as are many conclusions drawn from the classified sum-totals of the census, from the Board-of-Trade tables, and from criminal returns, it must be admitted that these imply a progress towards more precise conceptions of social phenomena.

That an essential characteristic of advancing Science is increase in definiteness, appears indeed almost a truism, when we remember that Science may be described as definite knowledge, in contradistinction to that indefinite knowledge possessed by the uncultured. And if, as we cannot question, Science has, in the course of ages, been evolved out of this indefinite knowledge of the uncultured, then, the gradual acquirement of that great definiteness which now distinguishes it, must have been a leading trait in its evolution.

§ 137. The Arts, industrial and æsthetic, supply illustrations perhaps still more striking. Palæolithic flint implements show the extreme want of precision in men's first handiworks. Though a great advance on these is seen in the tools and weapons of existing savage tribes, yet an inexactness in forms and fittings distinguishes such tools and weapons from those of civilized

races. In a smaller degree, the productions of the less-advanced nations are characterized by like defects. A Chinese junk, with all its contained furniture and appliances, nowhere presents a line that is quite straight, a uniform curve, or a true surface. Nor do the utensils and machines of our ancestors fail to exhibit a similar inferiority to our own. An antique chair, an old fire-place, a lock of the last century, or almost any article of household use that has been preserved for a few generations, proves by contrast how greatly the industrial products of our time excel those of the past in their accuracy. Since planing machines have been invented, it has become possible to produce absolutely straight lines, and surfaces so truly level as to be air-tight when applied to each other; while in the dividing-engine of Troughton, in the micrometer of Whitworth, in microscopes that show fifty thousand divisions to the inch, and in ruled divisions up to 200,000, we have an exactness as far exceeding that reached in the works of our great-grandfathers, as theirs exceeded that of the aboriginal celt-makers.

In the Fine Arts there has been a parallel progress. From the rudely-carved and painted idols of savages, through the early sculptures characterized by limbs without muscular detail, wooden-looking drapery, and faces devoid of individuality, up to the later statues of the Greeks or some of those now produced, the increased accuracy of representation is conspicuous. Compare the mural paintings of the Egyptians with the paintings of mediæval Europe, or these with modern paintings, and the more precise rendering of the appearances of objects is manifest. It is the same with fiction and the drama. In the marvellous tales current among Eastern nations, in the romantic legends of feudal Europe, as well as in the mystery-plays and those immediately succeeding them, we see great want of correspondence to the realities of life; alike in the predominance of supernatural events, in the extremely improbable occurrences, and in the vaguely-indicated personages. Along with social advance, there has been a progressive diminution of unnaturalness — an approach to truth of representation. And now, cultivated men applaud novels and plays in proportion to the fidelity with which they

exhibit characters; improbabilities, like the impossibilities which preceded them, are disallowed; and we see fewer of those elaborate plots which life rarely furnishes: realities are more definitely pictured.

§ 138. Space might be filled with evidences of other kinds, but the basis of induction is already wide enough. Proof that all Evolution is from the indefinite to the definite, we find not less abundant than proof that all Evolution is from the homogeneous to the heterogeneous.

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[Ch. XVII.] § 139. The conception of Evolution elaborated in the foregoing chapters, is still incomplete. True though it is, it is not the whole truth. The transformations which all things undergo during the ascending phases of their existence, we have contemplated under three aspects; and by uniting these three aspects as simultaneously presented, we have formed an approximate idea of the transformations. But there are concomitant changes about which nothing has yet been said, and which, though less conspicuous, are no less essential.

For thus far we have attended only to the re-distribution of Matter, neglecting the accompanying re-distribution of Motion. Distinct or tacit reference has, indeed, repeatedly been made to the dissipation of Motion, that goes on along with the concentration of Matter; and were all Evolution absolutely simple, the total fact would be contained in the proposition that as Motion dissipates Matter concentrates. But while we have recognized the *ultimate* re-distribution of the Motion, we have passed over its *proximate* re-distribution. Though something has from time to time been said about the escaping motion, nothing has been said about the motion which does not escape. In proportion as Evolution becomes compound — in proportion as an aggregate retains, for a considerable time, such quantity of motion as permits secondary re-distributions of its component matter, there necessarily arise secondary re-distributions of its retained motion. As fast as the parts are transformed, there goes on a transformation of the sensible or insensible motions possessed by the

parts. They cannot become more integrated, either individually or as a combination, without their motions, individual or combined, becoming more integrated. There cannot arise among them heterogeneities of size, of form, of quality, without there also arising heterogeneities in the amounts and directions of their motions, or the motions of their molecules. And increasing definiteness of the parts implies increasing definiteness of their motions. In short, the rhythmical actions going on in each aggregate, must differentiate and integrate at the same time that the structures do so.

§ 139*a*. The general theory of the re-distribution of the retained motion, must here be briefly stated. Properly to supplement our conception of Evolution under its material aspect by a conception of Evolution under its dynamical aspect, we have to recognize the source of the integrated motions that arise, and to see how their increased multiformity and definiteness are necessitated.

If Evolution is a passage from a diffused state to an aggregated state, then the motions of the celestial bodies must have resulted from the uncancelled motions of their once dispersed components. Along with the molecular motions everywhere active, there were molar motions of those vast streams of nebulous matter which were generated during the process of concentration — molar motions of which large portions were gradually dissipated as heat, leaving undissipated portions. But since the molar motions of these nebulous streams were constituted from the motions of multitudinous incoherent gaseous parts severally moving more or less independently, it follows that when aggregation into a liquid and finally solid celestial mass was reached, these partially independent motions of the incoherent parts became merged into the motion of the whole; or, in other words, unintegrated motions became an integrated motion. While we must leave in the shape of hypothesis the belief that the celestial motions have thus originated, we may see, as a matter of fact, that the integration of insensible motions originates all sensible motions on the Earth's surface. As all know, the denudation of

lands and deposit of new strata, are effected by water while descending to the sea, or during the arrest of those undulations produced on it by winds; and, as before said, the elevation of water to the height whence it fell, is due to solar heat, as is also the genesis of those aerial currents which drift it about when evaporated and agitate its surface when condensed. That is to say, the molecular motion of the ethereal medium is transformed into the motion of gases, thence into the motion of liquids, and thence into the motion of solids: stages in each of which a certain amount of molecular motion is lost and an equivalent motion of masses gained. It is the same with organic movements. Certain rays issuing from the Sun, enable the plant to reduce special elements existing in gaseous combinations around it, to solid forms — enable the plant, that is, to grow and carry on its functional changes. And since growth, equally with circulation of sap, is a mode of sensible motion, while those rays which have been expended in generating both consist of insensible motions, we have here, too, a transformation of the kind alleged. Animals, derived as their forces are, directly or indirectly, from plants, carry this transformation a step further. The automatic movements of the viscera, together with the voluntary movements of the limbs and body at large, arise at the expense of certain molecular movements throughout the nervous and muscular tissues; and these originally arose at the expense of certain other molecular movements propagated by the Sun to the Earth; so that both the structural and functional motions which organic Evolution displays, are motions of aggregates generated by the arrested motions of units. Even with the aggregates of these aggregates the same rule holds. For among associated men the progress is ever towards a merging of individual actions in the actions of corporate bodies. In militant life this is seen in the advance from the independent fighting of separate warriors to the combined fighting of regiments, and in industrial life in the advance from the activities of separate workers to the combined activities of factory hands. So is it, too, when instead of acting alone citizens act in bodies — companies, unions, associations, &c. While, then, during Evolution the escaping motion becomes,

by widening dispersion, more disintegrated, the motion that is for a time retained, becomes more integrated; and so, considered dynamically, Evolution is a decrease in the relative movements of parts and increase in the relative movements of wholes — using the words parts and wholes in their most general senses. The advance is from the motions of simple molecules to the motions of compound molecules; from molecular motions to the motions of masses; and from the motions of smaller masses to the motions of larger masses.

The accompanying change towards greater multiformity among the retained motions, takes place under the form of an increased variety of rhythms. A multiplication of rhythms must accompany a multiplication in the degrees and modes of aggregation, and in the relations of the aggregated masses to incident forces. The degree or mode of aggregation will not, indeed, affect the rate or extent of rhythm where the incident force increases as the aggregate increases, which is the case with gravitation: here the only cause of variation in rhythm is difference of relation to the incident force; as we see in a pendulum which, though unaffected in its movements by a change in the weight of the bob, alters its rate of oscillation when its length is altered or when, otherwise unchanged, it is taken to the equator. But in all cases where the incident forces do not vary as the masses, every new order of aggregation initiates a new order of rhythm: witness the conclusion drawn from the recent researches into radiant heat and light, that the molecules of different gases have different rates of undulation. So that increased multiformity in the arrangement of matter, necessarily generates increased multiformity of rhythm; both through increased variety in the sizes and forms of aggregates, and through increased variety in their relations to the forces which move them. That these motions, as they become more integrated and more heterogeneous, must become more definite, is a proposition that need not detain us. In proportion as any part of an evolving whole segregates and consolidates, and in so doing loses the relative mobility of its components, its aggregate motion must obviously acquire distinctness.

§ 144. How in societies the movements or functions produced by the confluence of individual actions, increase in their amounts, their multiformities, their precision, and their combination, scarcely needs insisting upon after what has been pointed out in foregoing chapters. For the sake of symmetry of statement, however, a typical example or two may be set down.

At first the military activities, undifferentiated from the rest (all men in primitive societies being warriors) are relatively homogeneous, ill-combined, and indefinite: savages making a joint attack severally fight independently, in similar ways, and without order. But as societies evolve the movements of the thousands of soldiers which replace the tens of warriors, are divided and re-divided in their kinds of movements: here are gunners, there infantry, and elsewhere cavalry. Within each of the differentiated functions of these bodies there come others: there are distinct actions of privates, sergeants, captains, colonels, generals, as also of those who constitute the commissariat and those who attend to the wounded. The clustered motions that have thus become comparatively heterogeneous in general and in detail, have simultaneously increased in precision; so that in battle, men and the regiments formed of them, are made to take definite positions and perform definite acts at definite times. Once more, there has gone on that integration by which the multiform actions of an army are directed to a single end. By a co-ordinating apparatus having the commander-in-chief for its centre, the charges, and halts, and retreats are duly concerted; and a hundred thousand individual motions are united under one will.

Again on comparing the rule of a savage chief with that of a civilized government, aided by its subordinate local governments and their officers, down to the police, we see how, as men have advanced from tribes of hundreds to nations of millions, the regulative action has grown large in amount; how, guided by written laws, it has passed from vagueness and irregularity to comparative precision; and how it has sub-divided into processes increasingly multiform. Or after observing how the barter that goes on among barbarians differs from our own commercial

processes, by which a million's worth of commodities is distributed daily; by which the relative values of articles immensely varied in kinds and qualities are exactly measured, and the supplies adjusted to the demands; and by which industrial activities of all orders are so combined that each depends on the rest and aids the rest; we see that the kind of movement which constitutes trade, has become progressively more vast, more varied, more definite, and more integrated.

§ 145. A finished conception of Evolution thus includes the re-distribution of the retained motion, as well as that of the component matter. This added element of the conception is scarcely, if at all, less important than the other. The movements of the Solar System have a significance equal to that which the sizes, forms, and relative distances of its members possess. The Earth's geographical and geological structure are not more important elements in the order of Nature than are the motions, regular and irregular, of the water and the air clothing it. And of the phenomena presented by an organism, it must be admitted that the combined sensible and insensible actions we call its life, do not yield in interest to its structural traits. Leaving out, however, all implied reference to the way in which these two orders of facts concern us, it is clear that with each re-distribution of matter there necessarily goes a re-distribution of motion; and that the unified knowledge constituting Philosophy, must comprehend both aspects of the transformation.

Our formula, therefore, needs an additional clause. To combine this satisfactorily with the clauses as they stand in the last chapter, is scarcely practicable; and for convenience of expression it will be best to change their order. On doing this, and making the requisite addition, the formula finally stands thus: — *Evolution is an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity; and during which the retained motion undergoes a parallel transformation.*[1]

[1] The definition of Evolution needs qualifying by introduction of the word "relatively" before each of its antithetical clauses. The statement should be that "*the matter passes from a* relatively *indefinite, incoherent homogeneity to a* relatively *definite, coherent heterogeneity.*" . . .

RUDOLPH HERMANN LOTZE
(1817–1881)

MICROCOSMUS

Translated from the German by*
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Book III. LIFE

CHAPTER V. BEGINNING AND END OF SOUL-LIFE

§ 2. It is a strange and yet an intelligible pride that our scientific illuminati take in requiring for the explanatory reconstruction of reality in thought no other postulates than an original store of matter and force, and the unshaken authority of a group of universal and immutable laws of Nature. Strange, because after all these are no trifling postulates, and because it might be expected to be more in accordance with the comprehensive spirit of the human reason to acknowledge the unity of a creative cause than to have imposed on it as the starting-point of all explanation the promiscuous variety of merely actually existent things and notions. And yet intelligible, for in return for this single sacrifice the finite understanding may now enjoy the satisfaction of never again being overpowered by the transcendent significance and beauty of any single phænomenon; however wondrous and profound may appear to it any work of Nature, those universal laws, which are to it perfectly transparent, give it the means of warding off a disagreeable impression, and, while proving how perfectly it understands that even this phænomenon is but an incidental result of a well-known order of Nature, it succeeds in drawing

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within the limits of its own finitude what to the unprejudiced mind is conceivable only as a product of infinite wisdom.

These tendencies and habits of scientific culture it will be hard to shake, especially by the arguments usually brought to bear on them by the believers in a higher, intelligent guidance of the course of Nature. For however distinctly unbiassed observation may suggest this belief, so that it may seem alike foolish and tedious to attempt to understand the order of Nature without it, the supporters of the mechanical conception can always with justice reply that nevertheless in the explanation of details their road is always entered by those who on the whole believe unquestioningly in the government of an intelligently working power. They, too, are not content till, for each result ordained by this power, they have one by one traced out the efficient means through whose necessary and blind causal connection the required effect must be brought about. Even they will never seriously believe that within Nature as it lies patent to our senses, this purposive power makes new beginnings of working, such as, if traced further back, would not always prove to be the necessary results of a prior state of things. While thus even to those who hold the more religious view, the course of events is again converted into the unbroken chain of mechanical sequence, from the scientific point of view the latter alone is conspicuous, and the idea of free action on the part of an intelligent force, to which no sphere of action can be assigned, is readily dropped. Science might be able to allow that the origin of the whole, whose internal relations alone form the subject of its investigations, may be attributed to a Divine Wisdom, but it would demand facts that, within the sphere of experience, made a continuous dependence of the creation on the preserving providence of its author a necessary condition of explanation. Too ingenuous and self-confident, the believers in this living interference of reason working towards an end bring forward only the fair aspects of life, and for the time forget its shadows; in their admiration of the wondrous harmony of organized bodies, and of their careful adaptation to the ends of mental life, they do not

think of the bitter persistence with which this same organized life transmits ugliness and disease from generation to generation, or of the manifold hindrances that come in the way of the attainment even of modest human aims. How little, then, can this conception of the universe — to which the presence of evil is, if not an insoluble, at least an unsolved problem — hope by its assaults to overcome a habit of mind that finds numberless special confirmations in observation, and is inaccessible to any feeling of the universal deficiency under which we suppose it to labor!

And is it compelled to make even the acknowledgment which it will perhaps make, that this world of blind necessity came forth at least primarily from the wisdom of a supreme creator? Doubtless it can reply that even the purposiveness of the present fabric, as it now is, could certainly have been evolved from the confusion of an original chaos under the sway of universal laws. For all that was brought together by a planless vortex, in unmeaning aggregation and without the internal equilibrium of constituents and forces that might have secured to it a longer existence in the struggle with the onward-sweeping course of external Nature: all this has long since perished. Along with and after numberless unsuccessful attempts at formation, which perhaps filled primæval times in a rapid alternation of rise and decay, Nature gradually shrank into a narrower channel, and only those select creatures were preserved on which a happy combination of their constituent parts had bestowed the power of withstanding the pressure of surrounding stimuli, and of propagating their kind throughout an indefinite period. However little we may probably esteem this theory, we could yet hardly snatch it from those whom it satisfies, and we ourselves cannot wholly disallow the charm that scientific ingenuity will always find in the attempt to evolve from the formless chaos of whirling motions the necessity of a gradual sifting, and the spontaneous formation of permanent forms of succession of phænomena.

But all such attempts rest on the common assumption that the universal sway of unchanging laws prescribes the kind and

amount of the reciprocal actions engaged in by the several substances of the original chaos, and thereby compels them to withdraw from combinations in which no equilibrium is possible, and to enter into others in which they are at rest, or can retain a constant mode of motion. This assumption it is whose trustworthiness we must now test; with it stands or falls the proud certainty of the mechanical conception of the universe. Is this veneration for an all-prevailing law of Nature, as the only bond that forces the scattered elements of the course of things into mutual active relations and determines the character of their results, itself a possible conception, and can it put the finishing touch to our view of Nature, whose perfecting in detail we ourselves have everywhere looked to it to accomplish?

§ 3. Let us suppose two elements originally in existence, not produced by anything, not sprung from any common source, existing from eternity as things actual without any antecedents, but existing so that they have no other community than that of contemporaneous existence: how could the influence of the one be communicated to the other, seeing that each is as it were in a separate world, and that between them there is nothing? How is the efficacy of the one to make its way to the other through this nothing, offering no means of transmission? And if we did suppose that the energy of each element constantly diffused itself like a separable atmosphere through a common space, effective like the rays of light where it met with anything on which to act, and floating idly in vacuo where nothing presented itself, what should we have gained? We would not understand our own conception, either how the action could issue from the limits of that in which it was generated; nor how, floating for some interval of time between its source and that which was to be its object, it maintained itself in vacuo; nor, lastly, how, in the end reaching the latter, it was able to exert a transforming power over its states. For, while space would offer no obstacle to the mutual action of that which, though separated by it, was yet united by an inherent relation, contact in space would not involve any necessity of reciprocal action, or explain the possibility of it between beings each

of which in its complete self-dependence was divided from the other by the impassable gulf of inherent indifference. The transmission of action from the one to the other seems simple only to him who, looking at the question in a superficial, commonplace way, thinks he can distinctly perceive it in the external motions by which it is accompanied; to any one examining it more deeply, it becomes more and more inexplicable how the condition of the one can contain a force compelling the other to a change of its own internal states. As, before, we were unable to follow our will in its outflow into the moveable extremities, but had to acknowledge that all volition remains confined to the willing mind, and that the execution following it is the work of an incomprehensible power: in like manner all the forces which we suppose in any form to inhere in the one element, will be inadequate to give rise to an influence on that in which they do not inhere. Now, can the conception of the universal course of Nature supplied by our previous speculations, can the idea of a realm of eternally and universally valid laws, fill this hiatus, and weld the brittle and isolated fragments into the solid whole of a reciprocally acting world?

Certainly it cannot; for how could laws exist of themselves, as a necessity prescribing particular results for particular cases? There can be nothing besides being and its inherent states; and a universal order, before that of which it is the order has come into existence, cannot spring up between beings as a self-existent background holding them together, an efficient, controlling power. If we look back on our human life, we shall find that the laws of our social relations do not exist beside and between us in independent reality, are not powers to direct and control us from without because there they are; they exist only in the consciousness of the individuals who feel bound by them; they receive sanction and reality only through the actions of living persons; they are nothing but the harmoniously and inwardly-developed direction of many individual wills, which to the later generalizing scrutiny of observation appears as a higher externally-directing power because in its common authority over many it no longer presents itself as exclusively

the product of one. The laws of Nature may be superior to the ordinances of the human mind; while the latter may be gainsaid and disobeyed, the commands of the former are unlimited and resistless; nevertheless Nature cannot bring to pass what is self-contradictory, or bestow independent existence on that which can have its being only in and through what is self-existent. We are apt to be led astray in these speculations by a widely diffused usage of thought and speech that exercises no prejudicial effect on our judgment of the incidents of daily life, in reference to which it has arisen. We speak of ties uniting things, of relations into which they enter, of an order which embraces them, finally, of laws under whose sway they respectively stand; and we hardly notice the contradiction contained in these notions of relations lying ready before the things came to enter into them, of an order waiting to receive the things ordered, finally, of ties stretched like solid threads — of a material that we could not describe — across the abyss that divides one being from another. We do not consider that all relations and connections exist only in the unity of observing consciousness, which, passing from one element to another, knits all together by its comprehensive activity, and that in like manner all efficacious order, all laws, that we are fain to conceive as existing between things independently of our knowledge, can exist only in the unity of the One that binds them all together. Not the empty shadow of an order of Nature, but only the full reality of an infinite living being of whom all finite things are inwardly cherished parts, has power so to knit together the multiplicity of the universe that reciprocal actions shall make their way across the chasm that would eternally divide the several distinct elements from one another. For action, starting from one being, is not lost in an abyss of nothing lying between it and another; but as in all being the truly existent is one and the same, so in all reciprocal action the infinite acts only on itself, and its activity never quits the sure foundation of being. The energizing of one of its parts is not confined to that and isolated from the rest; the single state has not to travel along an indescribable path in order to seek another

element to which it may impart itself, nor has it to exert an equally incomprehensible force in order to compel that indifferent other element to participate in it. Every excitation of the individual is an excitation of the whole Infinite, that forms the living basis even of the individual's existence, and every one can therefore act upon every other which has the same living basis; for it is this which from the unity of its own nature causes the finite event here to be followed by its echo there. It is not anything finite that out of itself as finite acts upon something else; on the contrary, every stimulation of the individual, seeing that it affects the eternal basis that in it, as in all, forms the essence of its finite appearance, can through this continuity of related being — but through this alone — act upon the apparently remote.

We are not constrained to this recognition of an Infinite Substance, that instead of an unsubstantial and unreal law unites all things by its actual reality, merely by admiration for single spheres of phænomena, by whose special significance we are impressed; nay, every example of reciprocal action however insignificant, every instance of causality, forces us, in order to understand the possibility of a transference of influence, to substitute for a merely natural connection a substantial Infinite, containing unseparated the manifold that in phænomenal existence is separated. We could not seek such a bond between the constituents of the living body alone, or between body and soul pre-eminently, as if we did not need it everywhere; on the contrary, seeing that we look on all that happens, however it may be designated, as but the manifested internal energy of a single Infinite Being, the later course of our speculations will carry us further from the resuscitated mythology that, like the ancient sagas, allots to certain distinguished phænomena their special genii, and leaves the remaining workday reality to take care of itself.

For this Universal Being is not a mere bond, a mere indifferent bridge, having no other office than to form a way for the passage of action from one element to another: it is at the same time the sovereign power that for every antecedent fixes the

form and degree of its consequent, for each individual the sphere of its possible activity, for every single manifestation of the latter its particular mode. We deceive ourselves when we imagine we can derive the modes in which things act on one another, as self-evident results, from the particular properties that now constitute their nature, and from the joint influence of the circumstances of each occasion. Honest consideration, on the contrary, leads us to make the acknowledgment that the effects actually presented to us by experience are not to be got as necessary conclusions from these premises alone, however we may analyze and recombine their content, but that an unknown power, as it were, having respect to something that we do not meet with among these prior conditions, has annexed to their form the particular form of the result. The Infinite is this secret power, and that to which it has respect in the determination of results is its own presence in all finite elements, by which the universe receives the unity of a being, and on account of which the course of its events must receive the unity of a connected manifestation of the content of that being. Every finite thing, therefore, possesses the capability of action only in such amount and such quality as it is permitted by the Infinite to contribute to the realization of the whole.

§ 4. But we must be more diffuse, and allow ourselves to illustrate the faultless consistency of the theory which we are now engaged in stating, by the apparently opposite assumptions of which we formerly made use in our own examination of the separate phænomena.

In every finite thing, in so far as we apprehend it as a product of the One Infinite, we can point to a certain group of marks as the peculiar stamp assumed in it (as distinguished from every other finite thing) by that One. We cannot suppose that in any one of these particular forms that make the one finite thing this, the other that, the being of the Infinite that is in all alike the common ground of particular existence is exhausted; but just as little can we think that its indivisible content is split up into countless fragments and present in each several thing in only a part of its fulness. In considering the

vital activity of the human soul, we were led to make a requirement similar to that here forced on us, and we may now be assisted in forming a general conception of the relation in question by remembering that more easily grasped instance of it. When the soul forms thoughts without a trace of feeling or of willing, we do not suppose that this one-sided activity shows that but a part of its being is present, while its other capacities are slumbering in apathetic unconcern. On the contrary, the same whole nature that, under the influence of other stimulations, would develop feelings of pain and pleasure, efforts of desire and aversion, we conceived to participate with the whole extent of its being in the production of thoughts. But it is exhausted in thought no more than in any other particular form of its manifestation; in all fully present and active, it finds in each but a one-sided and partial expression, and behind the action evolved at each several moment a larger and more abundant and potential reservoir remains undisclosed and concealed. And this very wholeness of the soul's presence, common alike to all the manifold forms of its manifestation, is the instrumentality that makes the reciprocal action of the various internal states possible, and fixes the character of their resultant. We did not find feeling flow as a necessary and self-evident consequence from any complication of ideas; it arose because the presentative activity called into action the whole living soul, in whose nature feeling lay as yet unaroused, but ready to appear under conditions of which some are realized by the train of ideas.

Now let us compare with the soul's indivisible being the Infinite, the substance of all things; with the several forms of mental action those finite things — the visible elements of the world — whose various forms are the moulds in which that Infinite has been cast. Now, as in the soul the reciprocal action of the internal states, so in the process of the universe the reciprocal action of things will depend, not only as to its general possibility, but also as to the character of its effects, on the community of being by which all are bound together. What each individual element performs, it performs not as individual,

but only in so far as, being individual, it is yet a phase of the universal; not because it is of such a kind and no other, includes such attributes and no others, must it produce such an effect and no other, but only because in it as it is abides the Infinite, whose abundant nature unites the attributes, ready with its force to protect them or to carry out their alteration. Thus at bottom everything finite works only by that in it which makes it secretly better than it seems, by the essential power of the Infinite latent even in it; the power and capability of action belongs not to the outer wrapping of particular properties, but solely to the core, in so far as therein enveloped. Now, if we give the name of *nature of a thing* to the fused and simplified duplicity of the Infinite Being that has in it assumed this particular form, or of the finite form that has become filled with the Infinite, we shall be entitled from this nature of the thing to derive all modes of its behaviour as necessary consequences. For inherent truth and consistency will compel the Infinite, with every special finite form which it assumes, to fix also the unalterable mode of action to be executed in it, in accordance with the ideal that presided over the creative moulding of this particular form as an essential part of its manifestation. But the usual bent of science is towards another form of statement; the group of attributes, inefficacious without the living being behind them, the finite envelope of the truly existent, is commonly termed the nature of a thing, and little is said about what we must regard as alone the enduring and efficacious substance of these phænomena. From this merely semi-nature it is believed that the procedure of things can be deduced as a necessary consequence; it is supposed not only that we can understand the possibility of influence being transmitted, but that in a series of universal and self-evident truths we further possess the means of deducing the character of any result from the given circumstances and the permanent properties of the things.

Here it is overlooked that the impression of self-evidence created by so many sequences of cause and effect, proceeds not from any inherent necessity intelligible to us, but solely from

the general and preponderant presence of those connections which, recurring constantly as actual arrangements of things, cheat us with the appearance of being not merely facts of experience, but necessary relations of thought.

After experience has taught us that the amount of ponderable matter remains unaltered under all transformations, this amazing result of observation assumes in our eyes the exalted character of a primary necessity, and we imagine that a necessary inference of the permanence of substance might have taught us this fact anterior to any experience. After we have observed that motion once begun goes on the longer the more it is freed from obstacles, we are suddenly possessed by the idea that perpetual duration, where it is not resisted, is its necessary condition, and yet we never succeed in proving this would-be necessary truth from grounds of pure thought. Again, after we have seen that one body sets another in motion by impact, the distribution of velocities and the communication of motion in general seem to us phænomena naturally to be anticipated, and only when we try definitely to state the ground of this expectation do we discover that we know none. That every physical force diminishes as the distance between the bodies exerting it increases, we fancy to be a law which we cannot think otherwise, and yet, to be candid, we know no reason why, on the contrary, attraction should not be less at a diminished distance, as it might easily be decreased in proportion to the amount of influence already exerted. Lastly, how readily do we ascribe an affinity to bodies, when their chemical action on one another has to be explained, not deducing it from the rest of their nature, but regarding it literally as the capability of an operation supplementary to their nature! Of course in this case we shall throw the blame on the incompleteness of our knowledge from experience; we think that we are not thoroughly acquainted even with the nature of the different elements; that if we were, we should find in it the explanation of their chemical affinities. This is possible, but assuredly only in the sense that the general rules according to which we should infer the chemical properties from the better-

known nature of the elements, would themselves presuppose a number of those causal connections which are demonstrable as undeniable facts of the actual order of things, but not intelligible as necessities.

From such fundamental facts, after we have learned their significance and the line of their development, we can of course deduce manifold particular results, but we cannot discern these themselves from a mere study of the things as given. Only if we knew the idea with which the Infinite brought these things into being could we understand them. He who thinks to demonstrate the order of events solely from the incomplete nature of the finite, undertakes the hopeless task of forming a theory of the motions of shadows without regard to the motion of the bodies by which they are cast. For, in fact, as we cannot ascertain the speed with which two shadows will seem to rebound from mutual contact, from the velocity with which they approach one another, but only from the elasticity of their relative bodies, so what things perform depends not on their recognizable properties alone, but on the elasticity and vitality of the unconditioned, which, as the sole comprehensive and efficacious being, presents this appearance of having properties. Only if we could see through the inner nature of things and say what purpose the Infinite has in this multiplicity of phænomena and their endless complexity, would we from that purpose understand also the universal laws of working which it has laid down for itself in this manifestation, and be able not merely to accept them as facts, but to comprehend them as part of the inherent consistency of the Infinite.

As this, however, is not the case, we would not find fault with the phraseology of physical science, so long as it is designed only to apply to current investigations, not to express the outcome of completed inquiry. Just as in life we hold fast the silent conviction that each one of our moments is in the hand of God, while not caring to desecrate His name by bringing it into our thoughts about every trifling incident whose dependence on His will we do not understand, so we shall once for all adopt the belief that each stage of the course of Nature is

reached only through the working and shaping power of the Infinite; but we shall not be ever and anon repeating this belief in the interpretation of particular phænomena. For in such particulars the Infinite operates only under the guise of those derived principles into which it has transformed itself, of those substances, forces, and operations which it has created, of which it has prescribed the character and laws, which, finally, it has woven into the connected whole of a mechanical course of Nature. When in this sense we reduce all events in Nature to mechanical sequence, we act in accordance with the spirit of the Infinite, and show reverence to its ordinance; we do not set up mechanism in opposition to it as an independent, hostile power that it has to subdue, but we see in this the true efficacy of the Infinite, that which it would wish recognized throughout the world of phænomena as the hand by which its ends are accomplished. Thus physical science may seem to do without the Infinite, because it does not speak of it, and the superficial physical culture of our time may think it can do without it, because, exclusively concerned with little transitions from finite to finite, it loses sight of the beginnings of the web in which it is enmeshed; but, in point of fact, all honest reflection will arrive at a serious conviction of the utter absence of independence in Nature, and, where it stumbles upon questions such as those which led to this explanation, it will not be able to refrain from the open expression of this conviction.

Book IX. THE UNITY OF THINGS

CHAPTER III. THE REAL AND THE IDEAL

§ 2. If we bring together the results of the foregoing observations — which, dry as they are, we could not well avoid — we find that concerning that nature of things which has to be assumed in order to make the course of the world intelligible, we are forced to make definite presuppositions; but are not only unable to say how things could set about satisfying these presuppositions, but have also to acknowledge to ourselves

that the nature of things, thought as we think it, is adverse to the fulfilment of the demands which we make upon it. Three inferences which seem to exclude one another, and yet finally lead to the same goal, make it possible for us to hold such a conviction. Either we content ourselves with ascribing to our notions of things (as we previously did to the intuition of space) only a subjective validity as forms under which there appears to us the unity of the real world, which in its true shape we are incapable of cognizing; or we give up the thought of things, which we cannot work out to a satisfactory conclusion; or finally, we supplement the notion of things in such a way that it includes the conditions under which those demands upon their nature which we could not retract become capable of fulfilment.

Against choosing the first of these three ways no objection can be made, if it is taken to signify a complete breaking off of all investigation, and an unconditional renunciation of all pretensions to knowledge; but as a proposition containing a permanent addition to knowledge in the form of a positive assertion, the view from which this resignation flows cannot be maintained. For however much one may think that the nature of things is in itself beyond the reach of all knowledge, so that even the most unconditional and certain declarations of knowledge concerning things can only be understood subjectively of the mode in which they appear to the cognizing mind — even in such a case our assertions are not intelligible unless we presuppose the existence of things, and reciprocal action between them and us, for only thus can we give to the notion of their appearance a meaning that is intelligible and capable of being stated. Hence we should always in one breath both deny the cognizability — even in the most general way — of the nature of things and of action and (in order that we may be able to speak of their appearance) presuppose afresh the validity of our most general determinations of both; a familiar circle, from which this doctrine of Subjective Idealism has never been able to escape. Now this circle might itself be put to the account of that imperfection of our knowledge which we are forced to recognize, and it might be admitted that *we* cer-

tainly cannot explain how the phænomenal world can originate for us except by supposing that things have some kind of influence upon us, but that this reciprocal action of which we have a notion indicates the ground of that appearance, not as it is in truth and fact, but only in a way that is comprehensible to us. But then the things presupposed by us and the action assumed between them, would be wholly emptied of all special content of their own, altogether incapable of being intuited, indeed wrongly called by the names of *thing* and *action*, and would probably signify nothing more than the wholly unknown cause of our perception of the world, or rather our craving for some such conditioning cause. What is maintained from this standpoint would be as follows: thought, in order to make its own activities intelligible, is obliged to suppose a producing cause of them, and to present to itself in idea the conditioning power of this cause as a varying action of external things upon itself, being yet at the same time forced to recognize this whole mode of presentation in idea as only its own explanation of that cause, or of the action and passion which it attributes to that cause — this explanation being one that is not truly accurate. And in this case the notion of things must be reckoned among the ideas by which we seek to interpret our perception of the cosmos; it does not stand alone, established from the beginning by a special revelation, so that it would only be our further metaphysical thoughts concerning the unity and reciprocal action of things that would be incapable of combining with it as established truth; it too is, on the contrary, a product of our thought, the necessity and validity of which may be matter of question.

And here we — following the example of the historical development of philosophy — turn to the second of the ways above pointed out, namely that of Idealism. That all sensuous impressions which supply the content of our image of the cosmos, and all ideas of relations to which its order is due, are subjective states and activities of our mind, is an observation that at an earlier stage (*Microcosmus*, pp. 346 *seq.*) seemed to us an inadequate ground on which to found the conviction that the

whole phænomenal world which floats before our consciousness is but the product of a mysteriously ordered play of our imagination. But we here reach a similar view with better reason — not the subjective source of our idea of the world, but the very content of that idea, as we seem forced to think it forbids us to concede to it any other reality than that of an appearance in us. In pursuing the course of this Idealism for a while, we will assume that the lonely thinker may have been tempted, at least for a moment, to regard all physical and mental reality as an ordered dream of his personal individual Ego, the only Real thing which he immediately knows; but then his scientific instinct will, by some easily supplied middle terms, have brought him again so near to the ordinary view as to make the reality of other individual minds with which life brings him into contact, as indubitable to him as his own. It is only the realm of things, an intermediate region, which to the ordinary view seems to be spread out between minds, and by its own changes to initiate, keep up, and guide their inner life, that Idealism declares to be a mere appearance *within* minds. According to Idealism conscious beings interpret the connection of their own direct action and reaction by the image of a world of changeable things inserted between them, and acting upon them, in the same way as (according to our earlier assumption) in spatial intuitions the intellectual order of a world of things in themselves then presupposed by us, became transformed to the image of a space-world embracing those things themselves.

At any rate (so this Idealism maintains) the phænomenal world in which all minds have a common interest, and in which yet different minds participate with differences which have a correspondence among themselves, cannot have its ground in individual minds as such. But why should we seek this ground nowhere but in the presence without us of a multitude of things, when, on the one hand, what these do towards explaining the microcosmic order can be done without them, and, on the other hand, we always fail to understand how things can do that which they must do in order to be things. For when it comes to the point, the assumption of things has no other use for us than

this, that things mark for us fixed positions in the real world, positions in which we find, grouped together and realized, causes which give rise to results, points of departure for some occurrences which we call their effects, and, as it were, the goal of other occurrences which we call their states, although we cannot make it clear how these things possess an inner nature from which actual effects could proceed, or which could experience actual suffering. To regard these points of intersection of action — which are in themselves wholly empty and selfless, and seem on the one side to bring together that which on the other side they disperse again — as Real beings, may be a fiction convenient for our survey of the connection of phænomena, but must not be affirmed as an established dogma; on the contrary, this assumption must give place to any and every other which affords an equally intelligible explanation of the course of the world, without requiring the impracticable assumption of the Realness (*Realität*) of that which is destitute of all the inner conditions of Realness.

Now such an assumption offers itself to Idealism in a con viction which we have already reached by another path — the conviction that all individual things are thinkable only as modifications of one single Infinite Being. What might be the positive signification of this word *modification* we left in obscurity; it sufficed for us that it denied the independence of things with reference to the Infinite Being. We did not mean that the Infinite should be conceived after the analogy of some plastic material from the various parts of which all the multitude of different things should be cut out, and become independent objects; but if we now explain our meaning to be that things are states of the action and passion of the Infinite, we do not imagine that they — though without attaining the independence of self-sufficing substances — have reality as such states of the Infinite, elsewhere than in minds; we regard them rather as acts of the Infinite, wrought within minds alone, or as states which the Infinite experiences nowhere but in minds. Manifesting itself in the individual mind, and being in it and in all its like the efficient source of their life, the Infinite de-

velops a series of activities, as to which *how* they take place remains incomprehensible to finite consciousness, which intuits their product, as they occur, under the form of a multiform and changing world of sense. In this appearance which it presents to the eye of our mind, the Infinite exerts its own unity after a double fashion. For to the observing consciousness it first shows that similar consequences are attached to similar causes, and different consequences to different causes, thus revealing the logical consistency of its action which is governed by general laws; and also among the changing phænomena produced by the varying play of its action, there are brought into prominence the images of Things with their perdurable natures, as witness to certain and constant activities that are always maintained in it, and the rich content and significant reciprocal relatability of which it unfolds in the multiplicity of those changing events. Finally, being actively efficacious in all individual minds, as a power which in the whole spirit-world has assumed innumerable harmonious modes of existence, the Infinite brings to pass the exhibition of those same universal laws, by the totality of the various world-pictures which arise in various individuals; and moreover, the constant activities which appear to every individual mind as the real points of contact and intersection for the events within its world, are exercised by the Infinite with such accord in all that the same things — or at any rate the same world of things — appear to all as a common object of intuition, as an external reality common to all and connecting all.

This explanation of the world given by Idealism with reference to the relation between individual minds and the Infinite would still leave outstanding some obscurities which we do not yet wish to draw attention to; but it would certainly make superfluous the assumption of Real things in which are lacking all the inner qualifications of Realness. But whilst Idealism thus reduces to mere appearance that which as thought could not be a being at all, we held it possible to take a third path, which amounts to this, that we add to our idea of things that which their content seemed to lack in order to make Realness

possible for them. In fact, if the doctrine of Idealism reserves to spiritual beings the Realness which it refuses to selfless things (and this it tacitly does), what hinders us from finding in this mental nature that addition which the previously empty notion of things needed in order to become the complete notion of something Real? Why should we not transform the assertion that only minds are Real into the assertion that all that is Real is mind — that thus things which seemed to our merely external observation as working blindly, suffering unconsciously, and being self-contradictory through their incomprehensible combination of selflessness and Realness, are in fact better internally than they seem on the exterior — that they, too, exist not merely for others but also for themselves, and by this self-existence are capable of being after the fashion which we have felt compelled to require of them, though hitherto without any hope that our requirement could be fulfilled?

This assumption of a soul in all things would be much nearer common opinion than the more artistic view of Idealism; we ourselves have previously been led to it by other causes, and it has so many roots in the human mind that from the most varied standpoints we might describe the satisfying and interesting prospects which it opens to us concerning the connection of things. But we would now turn with indifference from all these inducements, and devote ourselves to some other questions raised by a comparison of the two views which we have last developed. As I have already noticed at an earlier point, their assertions have much more affinity than at first appears, and I fear lest there should be maintained between them a distinction which would rest upon an inadmissible prejudice. Idealism, it will be said, denies that things have Realness, and regards them as being by their nature incapable of detaching themselves from the Infinite, of which they are states, and attaining complete independence; whereas the last-mentioned view allows Realness to things, in that it regards them as having minds, and minds (in the self-existence (*Fürsichsein*) which constitutes the distinctive peculiarity of their nature) possess that which makes them capable of existing not only within or

in dependence upon the Infinite, as states of it, but also detached from it and in self-dependence. This mode of expression would involve the thought that the attribute of mentality is merely the legitimate ground in virtue of which beings which have minds can obtain Realness as a form of existence distinguishable from that self-existence to which we have referred. The influence of this thought is frequently encountered in the region of religious speculation, where it gives rise to the familiar question, whether the world, or things, properly exist in God or not, whether they are or are not immanent in Him — the complete dependence of the nature and existence of the world (or of things) upon God being conceded from the first The answers to this question, whichever alternative they may assert, plainly betray the opinion that it is not existence in God which would make the complete Realness of things indubitable, but only an existence *external to* God, whether that existence were original or due to some creative act of God. Thus they regard Realness as a definite formal relation to God, which they characterize by spatial images that are certainly wholly inadequate; of this relation they presuppose universally that it gives independent existence to any content to which it applies, and they will only admit partially and in detail that it is not every content which can stand in such a relationship, but that the title and the capacity thus to stand must be the result of some peculiar advantage of natural endowment. That this could not be our view, and why it could not, may most simply be made clear by the consideration to which we now proceed, in which for the sake of brevity we shall retain to some extent the phraseology of those religious investigations which we have mentioned, although our doing so is not perhaps quite justified at this stage of our reflections.

Let us assume that in God the idea of a definite content is thought in such a way as to include all the consequences which it has in the world of the divine thought, these thoughts of God being at the same time the very power which is in finite minds the efficacious cause of their intuition of the world; or, in other words, let us assume that in the Infinite a definite activity is so

exercised that at the same time — as must happen in consequence of the unity of this Infinite — there are also consistently exercised all those other activities which, in accordance with the universal orderliness of the action of the Infinite, must flow from that one; and that this activity of the Infinite is again the efficacious power which produces in individual minds the image of an external world: — if we assume this, then according to the view of Idealism, these inner acts of the Infinite really are the Real forces which (being in fact efficacious within the Infinite, each calling out and conditioning the other according to law) produce true action, that is at the same time incidentally perceived by individual minds as a world of external things embracing them all. And now we would ask ourselves, What exactly would be gained by these thoughts of God or these states of the Infinite, both of which have now been thought as immanent in God and in the Infinite as states of the one or of the other — what exactly would be gained (to use the phraseology of the discussions referred to) by their being *external to* God, or what exactly would be gained for them by being dissatisfied with this their immanence in God, and finding out for them in addition to this some transcendental existence? Finally, in what would this existence external to God ultimately consist, and what would be the *real* meaning of that which is figuratively intended by this spatial expression *external to?*

If one ponders these questions it will be found that nothing whatever is gained for selfless unconscious things, but that they rather lose by having ascribed to them that existence external to God; all the stability and all the energy which they exhibit as active and conditioning forces in the changes of that course of events which is visible to us, they — though as mere states of the Infinite — possess in all the same fulness as if they existed as things external to it; nay more, it is only through their common immanence in the Infinite that they have in any degree — as we saw earlier — that capacity of reciprocal action that could not belong to them as isolated beings detached from that substantial substratum. Thus by doing away the

immanence of things in God, we reap no advantage as regards that which things should be and do for one another and in connection with one another; but it is true that as long as things are only states of the Infinite, they are nothing *for themselves.* It is desired that something should be gained for things themselves; this is plainly what is meant by the insistence upon existence external to God; but the more genuine and true Realness of *being something for oneself*, or more generally of *self-existence*, is not attained by things by their being made external to God, as though this transcendency (of which it would be wholly impossible to give the exact significance) were the precedent formal condition to which self-existence were attached as its consequence; but in that a thing is something for itself, consciously refers to itself, apprehends itself as an Ego — by just this, which is its very essence, it detaches itself from the Infinite. It is not that it thereby *acquires* an existence external to the Infinite, but that by the very fact it *has* such existence; it does not fulfil thereby a condition by which is secured to it complete Realness, as a kind of existence including and bestowing something other than is contained in the condition itself — but self-existence or Selfhood (*Ichheit*) is the only definition which expresses the essential content and worth of that which we, from accidental and ill-chosen standpoints, characterize formally as Realness, or independent existence external to God, in contrast to immanence. He therefore who, constrained by necessity, regards minds as well as things, as being states, thoughts, or modifications of God or of the Infinite, yet as not serving merely to propagate the logical results of the nature of the Infinite from point to point, being connected amongst themselves as links of a chain, but as also feeling that which they do and suffer as their states, in some form of relation to self (*sich*), as events experienced by their self (*Selbst*) — he who assumes this, and yet believes in addition that for these living minds immanent in God, he needs to prove an existence external to God, in order that they may be Real in the full meaning of the word, does not, it seems to us, know what he is about — he does not know that he already possesses the kernel

whole and complete, and that what he painfully seeks is but the shell.

The result of these considerations admits of being differently expressed. If we continue to use the phraseology in accordance with which we designated Reality as the general affirmation which belongs to action as well as existence, then Realness is the special kind of reality which we attribute to or seek for things, as the points from which action sets out and in which it is consummated. This Realness has appeared to us as dependent upon the nature of that to which it is to belong; it is the being of that which *exists for self*. But we want the name *self-existence* in order to characterize in a more general way the nature of mentality, which only reaches its highest stage in the self-consciousness of the being that knows itself as an Ego (*Ich*), and is not, because of this being its highest stage, absent in the being which, though far removed from the clearness of such self-consciousness, yet in some duller form of feeling exists for itself and enjoys its existence. Hence to Realness in this sense we can attribute various degrees of intensity; we cannot say of everything that it is either altogether Real, or altogether not-Real; but beings, detaching themselves from the Infinite with varying wealth and unequal complexity of self-existence, are Real in different degrees, while all continue to be immanent in the Infinite. Hence the distinction between Idealism and the standpoint which we have just taken up does not consist in this, that we ascribe to things a transcendental and hence Real existence, while Idealism ascribes to them only an immanent and hence merely apparent existence; rather there exists between the two *this* difference, that the idealistic view, convinced of the selflessness of things, on this account will not allow that they are more than states of the Infinite; while we, agreeing herewith in principle, leave undecided, as something which we cannot know, the question whether this assumption of selflessness is appropriate, holding, however, that it is far more likely to be *in*appropriate, and that all things really possess in different degrees of perfection that selfhood by which an immanent product of the Infinite becomes what we call Real.

. . . The results of these considerations we shall now try to formulate, in the same way as we have done the results previously reached.

§ 5. VII. The notions by means of which we seek to determine the nature and connection of things, make demands with regard to which on the one hand we cannot understand how things thought as selfless can set about fulfilling them, and of which on the other hand it is clear that the nature of things thought as it has hitherto been thought excludes their fulfilment. For anything that we could imagine as an accomplished and concretely intuitable fulfilment of these postulates — not merely a fulfilment demanded and indicated in abstract formulæ — is only possible in some mind, in virtue of the peculiar nature which distinguishes it from that which is not mind.

VIII. If now that which we must require from things as the subjects of phænomena at the same time cannot be performed by them as long as they are things, then either things cannot exist, or they must exist otherwise than they have hitherto been thought to exist. Either only minds exist, and the whole world of things is a phænomenon in minds, or things which appear to us as permanent yet selfless points of departure, intersection, and termination of action, are beings which share with minds in various degrees the general characteristic of mentality, namely self-existence.

IX. The Realness of things and their self-existence are notions which have precisely the same significance. The meaning of this assertion is twofold. First, that a mind which continues immanent in the Infinite as a state, activity, or modification of it, directly that (notwithstanding this immanence) it exists for self, has in this very self-existence the fullest Realness, and does not obtain Realness by being detached from the Infinite and attaining the independence of an existence out of it; self-existence is the positive content of this independence for which we seek, the meaning of which becomes quite incomprehensible if it is regarded as some different kind of formal relation to the Infinite into which that which possesses

self-existence has yet to enter. But our proposition asserts in the second place (and this second assertion is most intimately connected with the first) that Realness is not to be understood as a consequence attached to self-existence as something to be earned by it, and hence distinct from it. Even the expression, Mind is Real in virtue of its self-existence, has not in this reference the exactness which we would desire; for that *in virtue of* allows of the misinterpretation that Realness may depend upon certain general conditions, which mind may fulfil by its self-existence, but which something else, for instance selfless things, may fulfil in some other way. But there are no such conditions; there is no law precedent to all reality, according to the prescriptions of which Realness and not-Realness are distributed among all that is conceivable. It is only the living mind that is, and nothing is before it or external to it; but it exists in such a way that it can only make its own existence and action objects of reflection by giving to their manifold content a framework of abstractions, connections, and other auxiliary constructions by which that content is divided, combined, and systematized — and these easily come to appear to it as not merely conditions of its thought about itself, but as being also conditions of its reality.

CHARLES RENOUVIER
(1818–1903)

ESSAYS OF GENERAL CRITICISM

Translated from the French * *by*
BENJAMIN RAND

FIRST ESSAY

GENERAL ANALYSIS OF KNOWLEDGE

PART I.—ON REPRESENTATION IN GENERAL

II. DEFINITION OF REPRESENTATION AND OF FACT OR PHENOMENON

Two series of opposite terms, into whose minute difference I need not yet enter, express a double operation essential to the process of thought. To discriminate, separate, or abstract, signify for me to consider separately; to compose, unite, or generalize, signify to consider together. We will give the name of analysis to the separating operation; and of synthesis to the combining operation.

What now are the objects of analysis and of synthesis? What can we consider either separately or combined? Sensations, ideas, volitions, emotions, or even substances, minerals, vegetables, animals, men, people, stars, worlds. I mean to say, and in so doing attach no importance either to the order or to the terms of this rough enumeration, that we consider *things*.

Things! Behold a word of supreme utility in philosophy. Novices disdain it, and yet it is inevitable. It is the first of

* From the *Essais de critique générale*, 3 vols. Paris, 1854–64 2 rev. ed. *ib.* 1876–92; 3 ed. *ib.* 1912.

syntheses, the most complete and the most clear, and at the same time the most vague. And whereas it expresses everything, it does not hamper the spirit of any system.

Now all possible things, I mean for us and for our knowledge, have a common character, that of being represented, of appearing. If there were no representation of things, no appearance, how would I speak of them? I do not exclude here any sort of representation. I allow this word to have whatever extension anyone desires to give it; but then it must be admitted that things of which there exists no sort of representation ought not to concern and indeed cannot concern me, nor any one.

I call representation (this is my first tautology) *that which is related to things, either separated or combined in any manner whatsoever, and by means of which we consider them.*

But what is there to be said of the thing itself? At this time nothing more. And how is it possible to use this word without giving it support? To do what is done every day by those who employ it without philosophizing, to extend or to narrow its scope indifferently to all combinations and all subdivisions of what one represents to oneself. If I say: the worst *thing* this government has done is . . . , or the *thing* which astonishes me most of all is the . . . , or the most beautiful *thing* in the world is the sunrise; or, water, iron, fire, are *things* supremely useful to man, no one will accuse me of making hypotheses, or of creating idols. No, I have attempted only to point out certain syntheses more or less complex of representations which experience furnishes to all of us for consideration, without reference to any scholastic definition. I am at liberty therefore provisionally and until more fully informed to envisage things merely under the common character which they possess of becoming apparent, manifest, or represented; of being in one word representations, and representations of fact or data of experience.

Things regarded as representations, conforming to what I have just set forth, I call *facts* or *phenomena.*

Thus I arrive at the definition of the *thing* by the *representation*, after having defined the *representation* by the *thing.* This circle is inevitable. The two words, *representation* and *thing,*

which at first were separated, may be blended in a third *phenomenon.*

III. First Analysis of Representation

What impresses one first in the representation, that which is its determining character, is, that it has two aspects and can only represent itself to itself as bilateral. These two elements, which are in every representation, I indicate rather than define by calling the one, *representative* (représentatif), and the other *represented* (representé).

These two terms are correlative and are so inseparable in their very distinctness that they each in turn offer both for analysis. The representative is a represented to itself, more or less distinct, and the represented, as the word signifies, is only understood by a corresponding representative. Or, to use another expression, the object and subject are essential to cognition. Cognition normally considers its object to be a subject which could exist without being represented; and yet considers the subject which it regards as its own proper basis as its object. Each of these two terms is thus identified in some manner with its correlative: the object makes itself subjective, and the subject makes itself objective.

The represented is most commonly that which is called a body with its qualities. It is what is understood as nature and everything described as perceived, felt, etc. The representative is rather that which embraces the current division of mind, soul, intelligence, etc. It comprises what is called thought, emotion, will, etc. And nevertheless it is necessary that the representative and the represented as so understood translate themselves reciprocally the one into the other, in order that the representation may be possible.

It is thus apparent that body and all of nature enter into knowledge under representative forms, and that, inversely, by virtue of the same necessity, all possible ideas assume represented forms. But this is mentioned, however, only by way of preliminary explanation, because I do not intend to depart from the logical and methodological point of view.

The division of phenomena into representative and represented has the excellence that is essential to discourse, and is to some extent more grammatical than philosophical. It is also invulnerable, universally admitted, and necessarily independent of every system. But for that reason it is necessary to refrain from hypostatizing these terms, and from making method degenerate into idolology.

I understand by this word *idolology,* which I wish I did not have to coin, but of which the sense will become clear in the course of my work, certain very strong illusions to which the mind is subject in its necessary analytical or synthetical procedure, and which seems inseparable from this procedure. Every time that certain elements of a representation are distinguished by an analysis, or systematically grouped in a synthesis a whole is formed and set up. So far so good; but one does not stop there. One perceives that the relations by means of which this operation was carried out disappear like the useless scaffolding of a completed edifice, and that the whole which one has set up remains alone, standing as of itself, independently. The principal aim of a good method is to recognize such illusions and to dispel them.

Thus the useful generality of the word *phenomenon* will permit us to make it serve for the designation of things, no longer merely considered as complete representations, but also considered as represented, or considered as representative. This distinction is necessary; but we shall not permit our own operations to deceive us, we shall not bow down to idols of our own making.

V. The Representation Implies Nothing but its Own Elements

For philosophy to have the right to lay down a principle of cognition other than the representation, the phenomenon, it does not suffice that one should be able to infer intelligibly from the representation something other than itself. This pretension, which we shall find not to be justified when we deal

with ontological doctrines, would allow at most of a second step to science, and would never replace the first. More than this would be necessary: a rigorous analysis of the representation would have to demonstrate clearly that the representation itself is only intelligible in so far as it presupposes, either within or outside of itself, something other than itself. To this task we now proceed to give our attention.

We have distinguished in representation these two elements, the *representative* and the *represented*. But for the logical exposition which I have already given there can be substituted the following, which at first glance appears wholly different.

Either objects are presented in any representation whatever as united to it to such a degree that they cannot exist or continue to appear instantly they are separated from it: thus my will, thus my pleasure. Or they are presented to this same representation as distinct subjects existing wholly apart from it: thus space and all it contains. The distinction of representative and represented in this new meaning, seems to oblige us in positing the representation to posit in addition to it something other than that which we have called by that term, namely, the absolute represented (représenté absolutement): either the subject which one considers to be reflected in the representation as is an image in a mirror; or the subject existing within and wholly constituting the representation as the duplicate of an original now and then projected beyond it; or, finally, both these subjects, the exterior one and the interior one changing places to constitute cognition.

Three systems! This is sufficient evidence that the method to be followed avoids all three. They monopolize at present and have always monopolized the whole of metaphysics, which is equivalent to saying that science is incompatible with them.

And in reality, those objects that the representation, considered generally posits, are nothing more than its elements and of equal right, without which it itself does not exist. If some appear to us as separable from it when they are taken in a particular representation, and others as inseparable, it is because the representations are not isolated, and are not self-sufficient inde-

pendently of the forms which they assume in common. The universal characteristic of a phenomenon is to be relative to other phenomena, and the relation assumes universal forms. At one time the relation is between representative terms, on the one hand, and terms viewed exteriorly to each other, on the other hand. The latter are presented coördinated, under a form of representation and of objectivity generally such, that their limitation to the particular representation is for that very reason excluded. Hence the separableness of space and of its contents relatively to a given representation. At another time the relation is between terms all intimately connected, so called internal terms, which belong properly to representative elements. These last are not separable. But because there are represented elements that each particular representation can consider outside of itself, it does not follow that there be any represented elements given absolutely without any representation whatever. Some such separably represented elements can correspond to other representations given of themselves; they can also lack relation to the subject properly so called, and involve exclusively an objective value, universal in very truth, as one will see when we deal with space.

Finally I adopt the point of view of knowing; not that of being without knowing, which is, I must avow, unintelligible to me. And for that reason I urge a general demurrer to the various systems.

To those who maintain the possibility of a certain represented *being in itself*, independently of all representation and even without the existence of any representative form, I reply in the first place by the opposite possibility that this absolute subject cannot exist; and in the next place I ask what is being in itself. I point out that this word *represented* which we are compelled to use, or any other equivalent epithet attributed to the subject, such as *thought, conceived, intelligible,* etc., reveal our impotency to transcend the representation. Moreover, I add that the alleged conformity between the subject and the object, between the represented in itself and the represented in the representation, demonstrates that it is still the representation

and it alone that one sets up in seeking to posit a thing other than the representation.

To others who seek to establish on the contrary a species of representative in itself, I reply that I am thoroughly ignorant of this new kind of subject, an idea in itself, and a representative apart from that which is represented. There is no more reason to admit a *projection* of the representative in order to constitute the represented than to admit a reflection of the represented in order to constitute the representative. But there are reasons for not admitting either the one or the other of these singular imaginations. Such reasons are: 1st, both have their partisans and are incompatible; 2d, the representative and the represented taken separately are *irrepresentable* entities; but united are terms of relation which have meaning in and through the representation. Apart from it they concern no one.

The refutation of absolute idealism, sometimes called egoism, is not less simple with the method I follow, because I begin by rejecting the theoretical me of which the egoist makes his idol. There remains the empirical me, synthesis of a certain order of representations for each person, and constituting each person. Now, how could I say what the *egoist* says, that *all representations are I*, when it is a fact that the words *self*, *him*, *other*, *not me*, *without me*, which are constantly on my lips, designate precisely those *representations which are not mine?*

As for those dualists, who admit apart from every representation both the representative entity and the represented entity, I can only bring against them collectively the objections made to the two contrary systems. These objections, moreover, amount to one only, which is a demurrer: cognition does not receive a represented without a representative, nor a representative without a represented, and it is in a representation that it receives both; otherwise never.

I set out to prove that the *representation implies nothing but itself*, and I have attained my end, if I have really made it clear that the representation emerges from itself only in order to posit the representation on a new basis, under other character-

istics, that is to say, in other relations; but even then always and everywhere the representation.

Moreover I cannot insist too much upon two points: 1st, that I do not consider the *representation* as solely *my representation;* 2d, that there is no representation without a represented of the same reality as itself, although irrepresentable and consequently unknowable apart from all representation.

XV. Recapitulation

The conclusion to be drawn from this extended analysis is that if things in themselves exist, independently of all representation, they are unknown to us. Such things are nothing for knowledge, nothing for us, and in consequence there exist for knowledge only representations.

I say representations and not *my representations*, since I know nothing of a *me*, or of *my* representations except by means of *representations*. I speak rather of phenomena, or of *things regarded as representatives* and *represented*, both considered either *objectively* or *subjectively*. The thing rejected as in itself reappears as phenomenon.

And this analysis was not even necessary. A few words rightly understood summarize and replace it. *Either we speak of things* (and of what else should we speak?) *in so far as they represent and are represented, whether under the objective or subjective form; or we speak of things in so far as they have wholly other relations, or as they have none of them. But in so far as they represent and are represented, things are identified with representations; and in so far as they have wholly other relations, or as they have none of them, they do not appear, and are as if they were not. Hence things are phenomena with respect to knowledge, and phenomena are things.*

Thus we began by distinguishing things from phenomena, and with that hypothesis imposed upon us by ancient metaphysics, we have demonstrated that things are not given to knowledge. That done, the words *things* and *phenomenon* become for us synonymous, and we find ourselves again at our

point of departure. But we possess a method, and our mind is freed from the obsession of false doctrines.

I know that the dialectical apparatus of the preceding pages may appear in one sense to cover truths very clear and very evident, almost puerile once the meaning is grasped; and, in another sense, to give rise to accusations of the bizarre, of paradox, and of sophism. My justification consists in this very contrast. It is necessary to pass through the play of a nebulous metaphysics, and to combat the shadows to which philosophy has given substance, before reaching the region of light and of the naked reality. The idol which ought to be overthrown at first dazzles the view. Its antiquity, its pretended sacredness, impose upon the most intrepid; and such is the strength of prejudice that every one expects to see all nature overwhelmed at the fall of the god. The blows themselves that we strike against it have something of the fantastic and produce a strange sound. But the task of demolition is no sooner accomplished than there occurs a wholly unexpected surprise. The idol becomes known for what it is. One touches the worm-eaten wood, and when finally it crumbles into dust, we discover that nothing around it has changed. Everything has preserved its place and its name, and no void has been made in the reality.

Part III.—ANALYSIS OF FUNDAMENTAL LAWS

XXVI. Definition of Categories

With a view better to throw light upon the course of this part of my treatise I begin with what it would be more natural to conclude. I shall make a rapid survey of those laws of representation of which the analysis is proposed. I attach anyway only an empirical value to the order I follow, and I do not know how I could do otherwise. We will then have to inquire if that order of itself is satisfactory, and if the content of the

representation is thereby truly exhausted. Facts alone can answer such a question.

As in representation *everything is relative*, and as nothing is perceived or known except by means of some relation, the most general law between all things is the *relation* itself. To relate phenomena to other phenomena, that is to say in the largest sense of the word, to *attribute*, that is to say in addition, from the standpoint of human representations, to *think*, to *judge*, means to determine the form and matter of a relation. Here I understand by form that which a relation has of a general nature and by which it embraces an indefinite number of relations otherwise distinct. Thus number, extension, etc., are forms according to this terminology. And by matter I understand that which is peculiar to a given relation in a phenomenon which is wholly individual and different from every other phenomenon. Thus this concrete number, this specific sense distance, this sensation, the particular object represented in this sensation, etc., are contents which enter into relations where they become subordinate to common forms.

Experience furnishes the material of relations, both representative and represented. It gives those particular relations which we are accustomed to call *facts* and *phenomena*. But I have been forced to generalize these two words, and extend them to laws. The laws are also phenomena, but they are objective when taken in their entirety, and as to their content cannot be determined and realized at one and the same time in the subjective order. The material of the laws is supplied, constantly added by experience to the contents of the representation.

The contents of the representation, and therefore experience itself are presupposed in any analysis; otherwise the general relations would be devoid of any basis. Every synthesis also implies them.

One sees that experience is the representation of the particular phenomena given, and that is the only definition one can venture. As soon as facts are generalized and assembled, one departs from pure experience, however great the part which one

wishes subsequently to ascribe to the experience of the experimenter, directed, checked up, and systematized by him, in view of verifying generalizations, syntheses, laws. Indeed this new experience presupposes (over and above the activity proper of the scientist who is acting) something more than the use of the data as such. It presupposes the activity of objective coördination, the act of representation, which by its very way of envisaging phenomena makes them into laws and stamps upon them a characteristic by which they extend as data beyond all possible data. I shall make clear through further discussion this essential and difficult point of the Kantian restoration * in the specific treatment of an important category such as space.

The categories are thus the first and irreducible laws of knowledge, the fundamental relations which determine its form and regulate its movement. As data of actual representation they fall under experience. They are particulars, and this to whatever number they may increase, and to whatever degree men may agree to posit them, and to posit them as generals. In this sense it matters little that phenomena may be more or less repeated, verified by one mind or by many minds. Experience, regarded as such, does not give the universal at all. The universality proper to categories consists in that, these while passing necessarily under conditions of experience in order to be manifested, nevertheless are presented as superior to experience, capable of enveloping it, and qualified to direct and impose upon it rules. We expect to find the categories constantly verified by the indefinite development of experience, and the totality of relations which they are able to include compose for us the series of possible experience.

The moment has not arrived to discuss from the standpoint of certitude the questions which here press forward. My purpose is the analysis of the categories as such, and the deduction of the consequences of this theory respecting the possibility of a single synthesis of knowledge.

* Renouvier says in the preface of the first edition of this work that he here continues Kant.

I disregard likewise the question so wrongly put, and now almost forgotten, of the *origin of knowledge* (whether innate ideas, or ideas proceeding from the senses). I disregard it, or rather resolve it quite sufficiently in a few words, as the result of the preceding considerations: Experience is essential to every representation, but logically it is preceded by that which renders experience possible, whatever may be the chronological order of the phenomena. It would have been a contradiction to suppose that experience defines in a complete and radical manner that which is set up in the representation as embracing possible experience. Now it would be impossible to deny that the same may hold of the categories, general theses of *relation*, of *number*, of *time*, of *cause*, etc. This solution does not differ in reality from that which an illustrious philosopher has summarized as follows: *there is nothing in the intellect that was not first in the sense — except the intellect itself.* It is not futile to remark that the sensualistic school has always admitted certain faculties, of which experience progressively furnishes the content, but which themselves anticipate experience in the form of particular powers residing where one will, in the soul, or in the organism, but suitable however to bring into the object of cognition the act and the form of cognition, to apply sensitivity and imagination to that which can be sensed, abstraction and generalization to the masses of facts, etc. Thus the great debate was only a question of words.[1]

I have said that the most general law is *relation* itself, of which all other possible laws are merely diversifications. *Relation* is therefore the most fundamental of the categories. We must then investigate that which belongs to it under its universal form, that is to say, what the other fundamental laws have in common.

Afterwards we must survey the determinative laws of relation, in the following order, proceeding from the abstract to the

[1] This procedure may appear a little too summary; still I believe it can be maintained against the school of Condillac. But the question of the origin of knowledge is treated to-day with a wholly other reasoning by the school of Hume in England. The *empiricism* is opposed to apriorism with a vigor heretofore unknown.

concrete, and from those forms most easily separated from the totality of representations, included as they are in practically all of them, to those which, on the contrary, embrace all of them. . . .

CATEGORY	THESIS	ANTITHESIS	SYNTHESIS
RELATION	DISTINCTION	IDENTIFICATION	DETERMINATION
Number	*Unity*	*plurality*	*totality*
Position	*Point*	*space*	*extent*
Succession	*Instant*	*time*	*duration*
Quality	*Difference*	*genus*	*species*
Becoming	*Relation*	*non-relation*	*change*
Casuality	*Act*	*power*	*force*
Finality	*State*	*tendency*	*passion*
Personality	*Self*	*non-self*	*consciousness*

XXVII. GENERAL LAW OF RELATION

DISTINCTION, IDENTIFICATION, DETERMINATION

On the Categorical Proposition and its Two Species

All science and all language, as I said at the outset of this Essay, proceed by composition and decomposition. The phenomenon is the material which analysis and synthesis distinguish, encompass, and put in action. The phenomenon, alike for knowledge and for science, appears in a relation. To unite and to separate relations is therefore the function of thought, both ordinary and scientific. This is also the process that is applied to the category of categories, the *relation*.

In other terms, attribution or the act of relating in general has two forms, the one positive, the other negative. According to the former relations are established by aggregation, and according to the latter by division. From the standpoint of judgment, regarded in man, to add is thus to affirm; to separate is to deny. But in order to deal with abstract categories it is necessary to put on one side both affirmation and negation as specific human functions, and to regard in the one only the

union, and in the other only the separation of relations, by whatever right the proposition presents them.

I call *categorical proposition* (as I would say *attributing*, accusing or referring some attribute to some subject under some category) the statement of a relation of two terms, whether simple or complex, provided that this relation implies neither doubt nor becoming. The terms are themselves given by other relations. The proposition determines a group of phenomena through relating it to another group. To determine is to limit. Let us verify this by a concrete application.

Whoever determines a given object in any way unites certain phenomena, and at the same time discriminates them in a larger combination. All that we know in reality, we constitute on the one hand negatively and by exclusion, and on the other hand positively and by composition. The tree that I behold is a group of varied relations from which I separate the surrounding relations, the sky, the field, etc.; otherwise it has for my eyes nothing definite. Thus quantities as well as qualities are determined; and in all the possible categories we combine in order to have knowledge, and at the same time we distinguish. In one word, we limit, and every object has its limit. Every limit supposes an object posited beyond it.

The category of relation, in so far as applied, obtains consequently its effect by means of determination or limitation, which is a synthesis of separation and of union, two subordinate categories, inverse the one to the other. Let us now pursue the inquiry more closely, and consider the simple categorical proposition and in itself.

The formula of the proposition A *is* B implies first of all the distinction of two terms, A on the one hand, B on the other, which are necessary to be defined in some manner by the relations which are peculiar to them. The copula at the same time makes known that there exists between A and B something in common and from this standpoint, disregarding the first, these two terms are identified: a single and identical relation gives them. Some examples taken from quantity and quality will later throw light on this theory. It suffices here to remark

without farther development that the relation of two qualities is obtained through the *difference* by which they are distinguished, and through the *genus* by which they are identified. And the relation of two quantities (in the case of equivalence for example) is drawn from an identity in respect to measurement joined to diversity in other respects.

Therefore the statement of relation, taken in its fundamental formula, *determines* by *distinguishing* and *identifying*. Whence it follows that *relation* in general, and in respect to its form, is a synthesis of distinction and of identification, which are similarly inherent to it, and in the absence of either one or the other of which it ceases to exist we can say moreover that the *relation* is a synthesis of the *different* and of the *like*. . . .

SECOND ESSAY

MAN — CERTITUDE

PART II.—CERTITUDE

XIV.[1] GENERAL DEFINITION OF CERTITUDE IN A CONSCIOUSNESS

WHAT is certitude? The Greeks sought it, and we still seek it. Academies ask it and obtain conventional answers. Among philosophers, some have said that certitude certainly exists, others that it certainly does not, and a small number, more prudent, that it was uncertain. The sceptics exulted with good reason over the disagreement of the dogmatists. How dare one, it is asked, speak of a certitude, which cannot even command universal recognition, and which does not invariably teach the same truths to its adepts?

Whether certitude exists or does not exist, whether it be a reality or a chimera, while seeking it, what does one seek, and what does one find when he thinks he has attained it? A very

[1] I derived the principal idea of this chapter, and whatever in my book concerns in any essential manner the establishing of freedom and of its relations to certitude, from a philosopher, M. Jules Lequier, a former scholar like myself of the Polytechnic school.

easy détour will permit us to answer that question and at the same time to begin our own research.

The opposite of certitude with respect to consciousness is incertitude. One is uncertain when one doubts. One does not doubt in any one of the three following cases: when one *sees*, when one *knows*, when one *believes*. But besides in affirming the thing given under any one of these three conditions it is necessary not to have the idea of the possibility of preferring the opposite affirmation. Even more it is necessary to consider such a possibility to be universally inadmissible in the same circumstances. One then says that one is certain

Of these three terms, to *see*, to *know*, and to *believe*, belief, or that which is ordinarily so named, appears least capable to assure the perfect stability of a given affirmation, because it is applied to cases, for which the same person at another time and under other conditions, or another person, bases different judgments. Experience only shows us too well such changes. To believe, it will be said, is precisely affirming without *seeing* and without *knowing*, upon incomplete data and which can vary. The prudent man, moreover, ought to apply a certain coefficient of doubt to every act of belief which he makes and which he is morally obliged to make.

But let us change our standpoint, and the question appears wholly different. Whatever exactness it is desired to give the terms to *see* and to *know*, and provided their application be not wholly exempt of judgment, it is an incontestable fact that there are perpetual or always reappearing differences in the affirmations of the philosophical schools, which pretend to have no other foundation than to *see* and to *know*. Thus belief does not vary alone. In life, as well as in philosophical systems, it happens that people think they see or know one thing, and afterwards think they see or know the opposite. If error be not the common lot of life, it is of philosophy. All philosophers will admit this statement, since they do not agree among themselves. Now what the facts of life offer us of general, certain, constant, and harmonious truths can only be recorded, formulated, and classified by philosophy. According to this

view would seem that of our three terms belief is the most general and embraces the other two. We ought to say that we *believe* we *see*, that we *believe* we *know*, and always that we *believe*. Belief then would no longer be for us the character of a judgment which is extremely variable and very difficult to support; it would be our state of consciousness in any affirmation the motives of which appear sufficient. There would be certitude lastly in the case I have already defined, that in which the possibility of a contrary affirmation was entirely rejected by consciousness.

Even in this last case, does it not subject certitude to change, to admit that it is a kind of belief? Does it not deny that which metaphysics has pursued under this name with so much persistence, if not with success? On the one hand, it is evident that convictions, necessarily individual, must vary, and that mankind, taken as a whole, has not achieved a more stable basis on the greater and most precious part of the conceptions which interest it. But on the other hand, is not consciousness unwilling to give over the consecrated truth to variations of thought, to caprices of will, to outbursts of passions? Shall we then set up nothing but what is changeable for the foundation of what we know or can know?

Once again let us ask what it is to be uncertain, and this time let us not be so easily satisfied. Let us recall a moral situation with which we are often confronted. What is it that happens that explains the state of mental suspense where thoughts appear powerless to stay and to assume the representation of a certain reality?

I can suspend my judgment in the presence of phenomena of which I recall having drawn false inductions. I can also suspend it solely because I have learned by experience that certain facts given to consciousness are not always found in agreement with other facts, or cannot always be classed among the terms of that series on which I admit that reality depends, and of which it is composed. The illusions of sense, the allurements of dreams, or those of hallucination are trite examples in phil-

osophy, but must always be cited. The most striking and typical case of this state with respect to the suspense of judgment is presented between waking and sleeping, and sometimes in the one or the other, when a man asks himself, Is it true, do not I dream?

Let us now pass from the sentient to the intelligible. Here again I am suspicious of the spontaneity of a first judgment. If reflection is prolonged it may never be arrested. After having consulted my memory, exercised my imagination, applied my reason, or, in a wider sphere, after having explored facts, approved or rejected opinions, and criticised theories, it happens that a truth does not appear to me evident, a decision not definitely satisfactory. Both in the domain of science and in that of practice, I doubt, when, wishing to complete the circle of analysis and of synthesis of my subject, terms escape me; or when I consider the obscurity of the connection of their series with other series of phenomena from which I do not dare to separate them. In these various cases the incertitude arises because the intellectual representation is incomplete, and because I know it to be such; and I consider myself not to be sure, not to be decided, that I do not understand, in a word that I do not know.

Just above I saw and I did not know. Now I know imperfectly and it is still not knowing. Thus alike from the standpoint of sensibility, and from that of understanding and of reason, one is uncertain because one *does not know.*

At other times, I feel that I doubt, with regard to remote or latent facts, or even with regard to objects that a little effort would enable me to reach and to examine; or in the presence of certain ends which I could here pursue and there avoid, if my heart energetically fixed upon them as goods or as evils, because the existence of the facts, or the realization of the ends, awakens in me neither a living interest, nor any deep or persevering affections. One even find men that nothing attracts, who do not repel anything except feebly, and who are attached to nothing. The person who in some juncture or with regard to a certain sphere of truth resembles them, is uncertain because he is without passion: *he does not become interested.*

In the last place, with regard to the internal wrestlings of conscience, when opposing passions rend the man, and contrary representations of good contend in his soul, when on all sides he appears to save himself and at the same time to perish if he comes to a decision, he is weak, wavering, divided, and no longer in control of himself. Of such a person it is said that he is without will, and, in effect, he is uncertain because *he does not will.*

The same characteristic is to be observed in a less violent and less impassioned state, in that very frequent type of men whom we may call derelicts. Such men by the weakness or lack of exercise of their reflective functions are rendered the plaything of events and of ideas. They surrender without resistance to the thoughts which come to them, and live and die without ever having appeared to themselves as being in possession of any certitude of their own creation. Some there are also in the speculative realm whose reflection is employed solely to avoid conclusions. In the case of the latter that very will which could give them certainty holds them in incertitude.

There are three kinds of doubt therefore to discuss: in relation to intelligence, or to passion, or to will. There are then also three forms of certitude, or at least three unequally distributed elements of a single and identical reflective act, from which no one of these three great human functions can be divorced. We cannot indeed affirm anything systematically, neither without some representation considered as true of a group of relations; nor without an interest of some kind which impels us to accept the perceived truth; nor without a determination of the will which fixes itself, when it would seem to be possible to suspend judgment, either in order to search for new motives and new reasons, or even by abandoning oneself to the impulses which present themselves.

But are these distinct elements really indissoluble? We must come to this conclusion first upon a general consideration, that of man's integrity in each of his states and of his reflective acts. To the totality of proofs in this matter which have

resulted from the analysis (§§ VI–XII) of human functions, let us add the constant observation of facts of generation, of alternation, of strife, of destruction, and of the renewal of systems in every sphere of knowledge. I put aside for a moment that very small portion of truth that is esteemed pure reasoning, or pure observation, or necessary and universal judgment. The element of sentient or rational apperception is everywhere, and is not contested. The passional and the voluntary elements enter manifestly into all affirmations relating to life and conduct. In fine, if doctrines were formed independently of these last mentioned elements, they would not be so variable or divergent; and the sciences themselves would not anticipate so habitually on the acquired facts, but would be developed in an ever regular progress, and banish all controversy. It has been and it is still seen that even mathematics has its sophisms, its errors, and its impossible discoveries. The example of Hobbes, a remarkable logician, who aspired to reform the principles of Euclid, would recur more frequently perhaps if the scholars or the masters themselves distrusted less their own powers and did not defer more than is usually thought to traditional authority as well as to abstract reason.

But can I somewhere admit *pure reasoning*, *pure observation*, and *necessary judgments;* necessary in the sense that it is utterly impossible for any doubt whatsoever to touch them? And would not that be to admit truths that neither passion nor will contribute to establish?

I admit them when I think of opposing to them only this gross intervention of passions, of beliefs, and of liberty, which sometimes effect a change of the supposed data, or the consequences of a scientific speculation in which reason and observation ought to dominate. We shall see later how this ascendancy actually gets established, and in what parts, and what can be inferred from it. I do not, however, admit them any longer when it is a question of testing profoundly the character of our affirmations, at the very moment they are produced without other guarantee than that of an individual consciousness, and in the presence of a possible doubt concerning the validity of

the process or concerning the truth of a particular representation. Such a doubt menaces them and would accompany them all, if it were not excluded in a twofold way, both by our will of deciding something, and for the interest of the ends our thought pursues. Lest one be accused of excessive rigor it is necessary to remember the nature of the question, to assume something which seldom ever happens, a man free from every habit and independent of all authority, and to observe him in the face of an entirely new idea. It is necessary also to bear in mind the severity which the subject demands, and the necessity of destroying abstractions, which have been set up by their authors as realities in the public mind. It is the timeworn and tenacious pretension of partisans of chimerical abstract certitude, so to speak, detached from human nature, which obliges the sincere philosopher to point out in his turn how much of any affirmation whatsoever is relative to consciousness, and consequently contestable in the eyes of this consciousness itself, if one cares to be very critical, as soon as it exceeds the range of implication of its actual and immediate phenomena. It is true that what is thus disputed must later be reestablished, but upon other foundations, and the more solidly, if they are the more true.

Moreover, it is not a question of reassembling as something new all those materials of ancient scepticism that Descartes in his time already called *rechewed victuals.* Any one can seek them in the writings of Sextus, called the Empiricist, where there is nothing left to be desired by the intelligent reader. After what we have said of errors that pertain to the human faculties, beyond the field of pure phenomalism, it will suffice to establish definitely the part that passion and will play in every judgment.

With regard to the voluntary element in the first place, we ought to consider it in reference to each of two hypotheses: necessity, liberty. According to the first hypothesis will enters into passion or into intelligence. Now the existence of error is a continual and universal fact that it would be possible

to deny only if we are pledged to suppress all discussions about all subjects in philosophy, and perpetuated in its history. Errors being necessary, if everything is necessary, must necessarily be charged to nature. Therefore one can neither impute them to the person who could not avoid them, nor prescribe for their removal a method which is sure and which no one judges to be erroneous — always on the assumption of necessity — unless experience decides in the end, and unity is created in minds. Until that day arrives it is impossible to establish a *proof* of certitude apart from the individual who thinks he possesses it. This individual himself would be wiser, if, in the presence of the floating mass of contradictory dogmas, he tempered in himself the pride of Spinoza by the doubt of Hume or the criticism of Kant. For the facts speak more loudly than his system whatever it may be.

Assuming the agreement of all men upon all things what proof should we have that they are not all and always necessarily mistaken? Has it not been a dogma of a great religion that the material world and entire nature are only illusion? Was Descartes' reply truly rational to his hypothetical objection of a GREAT DECEIVER? And if the universal law requires that so many individuals of mankind have lived and died, live and die everyday in error, why should humanity at large have any better lot in the immensity of the universe?

There remains the hypothesis of liberty, the only one where the meaning of will is clear. It is obvious that theoretically an affirmation can always be suspended by the thought of a possible error. Hence certitude cannot be created in a consciousness, unless will has excluded from it such a thought once conceived, the thought of the possibility of error. When and how can a man be said to be certain of not being mistaken, certain of attaining beyond a present impression, the reality of the external relations which it places before him, and of those which he attributes to himself, and which constitute his consciousness of the past? Memory (and where does memory not enter?) depends for its veracity on a feeling which cannot go beyond itself. What one grasps is that one thinks one is not

mistaken, and that one thinks it with all one's might, so to speak; but not that in this thinking one is not mistaken. The perceptions which involve the existence of their objects (in whatever sense one understands existence, for the question will arise later) are not however marked by any external sign by which they can be distinguished from the imaginations of dreams, or from the hallucinatory sensations. If any such sign were given, so that every state of feeling revealed outwardly its true character, immediately recognizable, we would not find the sway of illusions occupying the period of sleep, that is to say, roughly a third of human life, and absorbing the entire existence of so many unfortunates, who just because they are cut off from society are not also cut off from active humanity. It is necessary then to seek for a distinctive internal sign, one which resides in the act of consciousness. But we will not find such a sign simple, immediate, and instantaneously manifest. The distinction desired depends on a regulated exercise of reflection, and consequently of will. Thus the certitude of not dreaming, or of not having a disordered mind, supposes the effective presence of that function which we have found to be inert or in suspense in each of these two states. With will scrutiny intervenes; with scrutiny, a certain doubt which the will can invoke, maintain, or banish. Against this doubt finally there intervenes a determination which is never exempt from some belief, and in which habit, authority, and testimony of other men naturally form a great part.

Besides the perceptions and the facts of memory, there is nothing more of which one can think except the judgment and reasoning whereby natural objects may be immediately apprehended in an act of pure intelligence: reason, which unites a series of terms by the principle of contradiction; judgment, when consciousness represents it as necessary. But both of these functions require discrimination and identification of phenomena, a multiplicity of separate acts, afterwards united, that is to say, the exercise of memory. Moreover, the reasoning and the analytical judgments, in spite of the *evidence* which accompanies them, are always in danger of encountering

sophism and particularly equivocation. Hence they require, in order to be solidly established, reflection and whatever reflection involves. But even if we suppose reasoning and judgment fully evident of themselves, still they leave, so to speak, consciousness where they find it, except as principles, or synthetic judgments, interpose in their series. Demonstration permits neither a vicious circle nor a development to infinity: it implies consequently some indemonstrable principles which are syntheses to admit all forms. Let us examine these syntheses.

Certain syntheses are data of experience, others appear to be forms of consciousness itself. Those of the first kind are brought together by observation, which requires both an attentive consideration of the phenomena, and the abstraction of several among them, in order to bring out the relation of some of them, and finally generalization by which experience is always exceeded, sometimes without to our knowledge any protest on the part of experience, but often wholly the opposite. This sequence of operations can be conceived only in the unity of the functions of man, and led by reflection which confirms their consequences. Now if we hold by that which is pure observation in this order of procedure, we do not attain any other certitude than that of perception, of which we have already spoken; and if we exceed that limit, we permit the entrance of a priori judgments.

As for those forms of consciousness, those general relations which are affirmed in order to unite facts by anticipation and to regulate them (and it is necessary here to include the principle of contradiction, source of analytic judgments), all those affirmations, by whatever evidence they are accompanied, and with whatever force they are imposed, are nevertheless not such that we can entirely disengage them from the exercise of reflection, and consequently of will. Indeed the principle of contradiction itself has been denied by philosophers. We know that Leibniz strove to have accepted under the name of evidence and as fundamental in human reason another principle, that which he called the principle of sufficient reason; which has been constantly rejected by other schools. There is not

finally any axiom, any judgment, of those which form syntheses, so necessary, that it does not require a certain scrutiny when presented to thought for the first time. Let us set aside authority [1] and habits; an affirmation may be new, unexpected, moreover as evident and as striking as one shall wish, yet there will always be found room for a moment of doubt. Any one who thinks to obtain instantaneous certitude runs the risk of acclaiming the evidence of false propositions. We have constant examples of that being done among pupils in mathematics. Then, when habit and authority operate, contributing to a large extent in facilitating affirmation and in giving it assistance, their effects are credited to some specific characteristic of the present judgment which would put it directly and immediately in possession of truth. This possession, indefinable for the best of all reasons, which is its lack of voucher, they summarily call *evidence*, and believe everything has been said. That which is thus withheld from the voluntary exercise of reason should not be referred to vision or to intuition, as is constantly done, and as is shown so well by the favor enjoyed with a numerous public by a word the etymology of which is complementary to all sorts of groundless affirmation. The symbols drawn from vision apply badly to principles like causality, for example, and to many other universal judgments called necessary. It would be better in the majority of cases to call on instinct, to a force inherent in our nature. Now instinct is a natural, constant, irreflective passion; whereas reason, while it retains the most of that passion, has quite other characteristics. Why? Because it is not separated from will. Can rational knowledge perchance be separated from reason?

However it may be in regard to the foregoing considerations, of which a complete development would demand here too many historical and critical details, let us divide the affirmative function of consciousness into two component parts, which comprise all: the discursive operation, and the operation which

[1] I understand here by *authority*, when it concerns certitude, whatever influence is exerted upon the individual judgment by the judgment of another. Entire history, the history of ideas and that likewise of philosophy, testify how momentous is that influence.

embraces or appears to embrace only a moment of thought. To the first everything applies which has been said above of the conditions of memory. And the other incurs the same sceptical difficulties which have been distinguished at all times in the fact of perception. This is enough to conclude, not certainly that it is necessary everywhere to doubt, still less that doubt precedes all possible affirmations, but that the intellective human function, as pure as one could wish, being applied to the sensibility or to the rational phenomena, then extended beyond itself and the present moment, the interval is always sufficient for a certain speculative doubt to intervene. It suffices to whatever extent this extreme doubt is weakened, that the possibility of it appears: forthwith, the will, which is the representation itself, in so far as it is evoked, maintained, or delayed by its own movement, proceeds to find its place in consciousness. And thus the indissolubility of the human functions is substituted for the philosophy of the chimera of pure understanding.

Only a word need now be said on the passional element of our affirmations: that is, that where the voluntary element intervenes, the passional element also intervenes. When it is a matter of the judgments in which the understanding dominates, and in those which in the very great majority of cases spontaneously follow the sensations, the clearness, the force of a representation, all that we are accustomed to call evidence operates in the manner of passions which refer to ends and determine acts. The firm appearance of the represented in sensation, and the logical force of the categories in the phenomena of reason, are true passional forms, in that they lead to the act in view of an *end:* the act here is the judgment, and this vesting of consciousness in knowledge obtained incontestably constitutes an end. It is an end which even precedes the other ends that man may pursue, and in the absence of which they would all vanish. It is an end which embraces both the disinterested aim of study and of science, that is to say, the accession to the rational and to the true rather than to their contraries, and the

entire succession of useful consequences of which the whole is properly life. It is an end so indispensable that philosophical reflection alone discerns it, and that the great majority of mankind possess and hold as tenaciously as animals do their particular ends.

This brings us to the explication and justification of a term commonly adopted, although perhaps a little too inclusive, viz., *necessary judgment*. The series of primitive affirmations which set up the reality of the represented, and even more so, if it be possible, those which set up the specific laws of consciousness, must appear necessary by the same right as do any motives of our acts to a partisan of necessity, but necessary in a much more intelligible manner. In reality, the order of the world, so far as we can know it, scarcely suffers from the accomplishment or the non-accomplishment of the particular acts, which the passions of man propose to him. But the world itself and consciousness, however, would be only illusions for us, if we should resist that unique and radical passion, which compels us to affirm the reality of laws as the formal conditions for the evidence that we get of our existence and of all possible knowledge.

Necessity is therefore the characteristic of a group of judgments, which — to employ here a comparison drawn from the natural order — form the skeleton and the circulatory system, in a word, the most diverse organic functions of consciousness and its relations. I say, necessity, because we all yield to it, in so far as we are and live; and because morally we ought to attach ourselves to it, even admitting that in this position we should be open to a serious and durable doubt. It is not, however, so rigorous that an extreme and speculative doubt, itself in some way hypothetical, should not find us accessible. Reflection is not destroyed by the force of instinct. Genuine reflection, preceding an affirmation, always makes of this a voluntary mode; otherwise consciousness could not display to itself all its powers, and man would not know himself.

Nevertheless, in speaking of the indissolubility of functions, I have not meant that they might be wholly inseparable in fact

and in deed, in any determinations of consciousness. Will, the last appearance when one ascends from animal to man, is absent from a very large number of instinctive, habitual, or passionately spontaneous acts; and we have just seen that philosophers alone perceive it intervene in the class of primitive and fundamental judgments. But it suffices that it always exists potentially, and is represented at least as such, so soon as reflection appears, to compel us to take account of it in the analysis of the complete man and of the inherent elements of certitude. Would any one indeed dare to say that certitude need not involve reflection?

To summarize: We discriminate in the structure of certitude, besides an intellectual aspect, two forces from which we do not separate it: the force which urges to affirmation, and the force which knowingly makes itself affirmative: passion and will. The will, if we accept the hypothesis of necessity, would be lacking reality in the last analysis, but the place of it would be always occupied by the essential fact of the diversity of doctrines and of beliefs in all time, and in the development of a single consciousness. Thus it would not be possible for certitude to be established universally, that is to say, apart from the particular convictions of the individual. In the hypothesis of liberty, it is liberty that has the office of laying down the foundation of certitude.

The radical sign of will, the essential mark of that perpetual development by which man is capable of speculation on all things, and which elevates him to the dignity of an independent and autonomous being, is the possibility of doubt. Also it is not astonishing that the truly enlightened and thoroughly cultivated man is distinguished much more by the matters of judgment in which he is receptive to doubt, and admits his ignorance, than by those of which he possesses an imperturbable assurance. On the contrary the ignorant person doubts little, the stupid still less, the fool not at all. The world would be very different from what it is if the majority of men knew how to doubt. We would not see them slaves of their habits and of their prejudices, avoiding these usually only to yield to the

power of imagination and to be overpowered by the magic spell which some can effect by force of eloquence.

Certitude then is not and cannot be absolute. It is, as has been too often forgotten, a state and an act of man. It is not an act and a state in which he may immediately discern that which cannot be immediate, that is to say, facts or laws exterior or superior to actual experience; but one in which he posits his consciousness as it is and as he affirms it. Properly speaking, there is no certitude; there are only men who are certain. It ought to be admitted an universal maxim, *that everything which is in consciousness is relative to consciousness.* And as so simple a truth has been implicitly denied by philosophers, without invoking the aid of many arguments, he who is willing to scrutinise it will discover in it the best of reasons for the rejection of the dogmatism of evidence and of the pure understanding.

Man possesses certitude with respect to any object of his thought, when he comprehends it to the full extent of his intelligence, and feels himself driven by a powerful instinct, animated by an unalterable will in affirming it, and takes in such an affirmation a complete and unreserved delight. Now would it be possible for the thing thus loved, comprehended, and willed by all the forces of consciousness, not to exist as consciousness posits it? Yes, answers knowledge: yes, in the last analysis and in every case, considering that truth relative to man is human truth, and truth relative to the individual is individual truth. No, answers the *believer*, secure in the sentiment which possesses him.

Certitude is thus a belief, as I have said at the outset. But it was necessary to define that belief, and that is what I have tried to do. Inasmuch as belief is common to all men and essential to their nature, as respecting its data and fundamental applications, we perceive how it differs from the mystical, vacillating, arbitrary faith, born for the greater part from imagination and perpetuated among nations by education and custom. The dogmatic religious affirmation is not a product of intelligence and of reflection, in their independence and their

natural plenitude, when applied to the necessary subjects of human speculation. It is, however, legitimate in a domain that science judges inaccessible; legitimate on condition it respects reason in transcending the limits of the affirmations which reason alone suggests, and all the more in this case. Such an affirmation always depends on the authority of contemporaries and of that of the past. It takes an instant to establish this authority, and remains subjected to it for long ages afterwards. Happy then if, not claiming to believe without comprehending, the faith is something other than that which Voltaire has so well styled a submissive incredulity.

But lastly does there not exist a truth, not even a solitary one, which can be immediately apprehended, and of which the object and subject being identified in consciousness, establishes thereby the foundation of a more rigorous and simple certitude? In asking for a truth of that sort we both define and recognize it. It is given us in the phenomenon as such, and at the very moment in which it is perceived. There, no doubt is possible, all incertitude would be contradictory, because it would be necessary to think that possibly one does not think what one thinks: which is precisely to think it. If heretofore I have not made mention of this first and irrefutable type of evidence, I have constantly supposed it. But I was not entitled to give it the name of certitude, because it is the refuge of the sceptics who admit none of it. Beyond this definite and narrow point of consciousness, which is the shelter of the pyrrhonists, begins the application of judgment to the realities of imagination and of memory, to the universal laws of reason, and to the beings of the universe. This is the true field of certitude. There also is the beginning of speculative doubt which extends, becoming more and more marked, into the domain of science and of the particular sciences. It runs through all theories the bearing of which exceeds immediate experience, and includes in the end those of our affirmations in which the entire circle of analysis and synthesis can never be surveyed.

Certainty is pre-eminently a moral foundation: a bold conclusion, but justified by all that precedes. . . .

FRANCIS HERBERT BRADLEY
(1846–1924)

APPEARANCE AND REALITY

Book II. — REALITY

CHAPTER XXVI. THE ABSOLUTE AND ITS APPEARANCES *

We have in this Chapter been mainly, so far, concerned with a denial. All is appearance, and no appearance, or any combination of these, is the same as Reality. This is half the truth, and by itself it is a dangerous error. We must turn at once to correct it by adding its counterpart and supplement. The Absolute *is* its appearances, it really is all and every one of them. That is the other half-truth which we have already insisted on, and which we must urge once more here. And we may remind ourselves at this point of a fatal mistake. If you take appearances, singly or all together, and assert barely that the Absolute is either one of them or all — the position is hopeless. Having first set these down as appearance, you now proclaim them as the very opposite; for that which is identified with the Absolute is no appearance but is utter reality. But we have seen the solution of this puzzle, and we know the sense and meaning in which these half-truths come together into one. The Absolute is each appearance, and is all, but it is not any one as such. And it is not all equally, but one appearance is more real than another. In short the doctrine of degrees in reality and truth is the fundamental answer to our problem. Everything is essential, and yet one thing is worthless in comparison with others. Nothing is perfect, as such, and yet everything in some

* Reprinted from F. H. Bradley's *Appearance and Reality: A Metaphysical Essay.* London, George Allen & Unwin Ltd.; New York, The Macmillan Co 1893; 2 ed. 1897.

degree contains a vital function of Perfection. Every attitude of experience, every sphere or level of the world, is a necessary factor in the Absolute. Each in its own way satisfies, until compared with that which is more than itself. Hence appearance is error, if you will, but not every error is illusion.[1] At each stage is involved the principle of that which is higher, and every stage (it is therefore true) is already inconsistent. But on the other hand, taken for itself and measured by its own ideas, every level has truth. It meets, we may say, its own claims, and it proves false only when tried by that which is already beyond it. And thus the Absolute is immanent alike through every region of appearances. There are degrees and ranks, but, one and all, they are alike indispensable.

We can find no province of the world so low but the Absolute inhabits it. Nowhere is there even a single fact so fragmentary and so poor that to the universe it does not matter. There is truth in every idea however false, there is reality in every existence however slight; and, where we can point to reality or truth, there is the one undivided life of the Absolute. Appearance without reality would be impossible, for what then could appear? And reality without appearance would be nothing, for there certainly is nothing outside appearances. But on the other hand Reality (we must repeat this) is not the sum of things. It is the unity in which all things, coming together, are transmuted, in which they are changed all alike, though not changed equally. And, as we have perceived, in this unity relations of isolation and hostility are affirmed and absorbed. These also are harmonious in the Whole, though not of course harmonious as such, and while severally confined to their natures as separate. Hence it would show blindness to urge, as an objection against our view, the opposition found in ugliness and in conscious evil. The extreme of hostility implies an intenser relation, and this relation falls within the Whole and enriches its unity. The apparent discordance and distraction is overruled into harmony, and it is but the condition of fuller and more individual development. But we can hardly speak of the

[1] On the difference between these see *Appearance and Reality*, Chapter xxvii

Absolute itself as either ugly or evil. The Absolute is indeed evil in a sense and it is ugly and false, but the sense, in which these predicates can be applied, is too forced and unnatural. Used of the Whole each predicate would be the result of an indefensible division, and each would be a fragment isolated and by itself without consistent meaning. Ugliness, evil, and error, in their several spheres, are subordinate aspects. They imply distinctions falling, in each case, within one subject province of the Absolute's kingdom; and they involve a relation, in each case, of some struggling element to its superior, though limited, whole. Within these minor wholes the opposition draws its life from, and is overpowered by the system which supports it. The predicates evil, ugly, and false must therefore stamp, whatever they qualify, as a mere subordinate aspect, an aspect belonging to the province of beauty or goodness or truth. And to assign such a position to the sovereign Absolute would be plainly absurd. You may affirm that the Absolute *has* ugliness and error and evil, since it owns the provinces in which these features are partial elements. But to assert that it *is* one of its own fragmentary and dependent details would be inadmissible.

It is only by a licence that the subject-systems, even when we regard them as wholes, can be made qualities of Reality. It is always under correction and on sufferance that we term the universe either beautiful or moral or true. And to venture further would be both useless and dangerous at once.

If you view the Absolute morally at all, then the Absolute is good. It cannot be one factor contained within and overpowered by goodness. In the same way, viewed logically or æsthetically, the Absolute can only be true or beautiful. It is merely when you have so termed it, and while you still continue to insist on these preponderant characters, that you can introduce at all the ideas of falsehood and ugliness. And, so introduced, their direct application to the Absolute is impossible. Thus to identify the supreme universe with a partial system may, for some end, be admissible. But to take it as a single character within this system, and as a feature which is already overruled, and which as such is suppressed there, would, we have seen, be

quite unwarranted. Ugliness, error, and evil, all are owned by, and all essentially contribute to the wealth of the Absolute. The Absolute, we may say in general, has no assets beyond appearances; and again, with appearances alone to its credit, the Absolute would be bankrupt. All of these are worthless alike apart from transmutation. But, on the other hand once more, since the amount of change is different in each case, appearances differ widely in their degrees of truth and reality. There are predicates which, in comparison with others, are false and unreal.

To survey the field of appearances, to measure each by the idea of perfect individuality, and to arrange them in an order and in a system of reality and merit — would be the task of metaphysics. This task (I may repeat) is not attempted in these pages. I have however endeavoured here, as above, to explain and to insist on the fundamental principle. And, passing from that, I will now proceed to remark on some points of interest. There are certain questions which at this stage we may hope to dispose of.

Let us turn our attention once more to Nature or the physical world. Are we to affirm that ideas are forces, and that ends operate and move there? And, again, is Nature beautiful and an object of possible worship? On this latter point, which I will consider first, I find serious confusion. Nature, as we have seen, can be taken in various senses (Chapter xxii). We may understand by it the whole universe, or again merely the world in space, or again we may restrict it to a very much narrower meaning. We may first remove everything which in our opinion is only psychical, and the abstract residue — the primary qualities — we may then identify with Nature. These will be the essence, while all the rest is accessory adjective, and, in the fullest sense, is immaterial. Now we have found that Nature, so understood, has but little reality. It is an ideal construction required by science, and it is a necessary working fiction. And we may add that reduction to a result, and to a particular instance, of this fiction, is what is meant by a strictly physical

explanation. But in this way there grows up a great confusion. For the object of natural science is the full world in all its sensible glory, while the essence of Nature lies in this poor fiction of primary qualities, a fiction believed not to be idea but solid fact. Nature then, while unexplained, is still left in its sensuous splendor, while Nature, if explained, would be reduced to this paltry abstraction. On one side is set up the essence — the final reality — in the shape of a bare skeleton of primary qualities; on the other side remains the boundless profusion of life which everywhere opens endlessly before our view. And these extremes then are confused, or are conjoined, by sheer obscurity or else by blind mental oscillation. If explanation reduces facts to be adjectives of something which they do not qualify at all, the whole connection seems irrational, and the process robs us of the facts. But if the primary essence after all *is* qualified, then its character is transformed. The explanation, in reducing the concrete, will now also have enriched and have individualized the abstract, and we shall have started on our way towards philosophy and truth. But of this latter result in the present case there can be no question. And therefore we must end in oscillation with no attempt at an intelligent unity of view. Nature is, on the one hand, that show whose reality lies barely in primary qualities. It is, on the other hand, that endless world of sensible life, which appeals to our sympathy and extorts our wonder. It is the object loved and lived in by the poet and by the observing naturalist. And, when we speak of Nature, we have often no idea which of these extremes, or indeed what at all, is to be understood. We in fact pass, as suits the occasion, from one extreme unconsciously to the other.

I will briefly apply this result to the question before us. Whether Nature is beautiful and adorable will depend entirely on the sense in which Nature is taken. If the genuine reality of Nature is bare primary qualities, then I cannot think that such a question needs serious discussion. In a word Nature will be dead. It could possess at the most a kind of symmetry; and again by its extent, or by its practical relation to our weaknesses or needs, it might excite in us feelings of a certain kind. But

these feelings, in the first place, would fall absolutely within ourselves. They could not rationally be applied to, nor in the very least could they qualify Nature. And, in the second place, these feelings would in our minds hardly take the form of worship. Hence when Nature, as the object of natural science, is either asserted to be beautiful, or is set up before us as divine, we may make our answer at once. If the reality of the object is to be restricted to primary qualities, then surely no one would advocate the claims we have mentioned. If again the whole perceptible world and the glory of it is to be genuinely real, and if this splendor and this life are of the very essence of Nature, then a difficulty will arise in two directions. In the first place this claim has to get itself admitted by physical science. The psychical has to be adopted as at least co-equal in reality with matter. The relation to the organism and to the soul has to be included in the vital being of a physical object. And the first difficulty will consist in advancing to this point. Then the second difficulty will appear at once when this point has been reached. For, having gone so far, we have to justify our refusal to go further. For why is Nature to be confined to the perceptible world? If the psychical and the "subjective" is in any degree to make part of its reality, then upon what principle can you shut out the highest and most spiritual experience? Why is Nature viewed and created by the painter, the poet, and the seer, not essentially real? But in this way Nature will tend to become the total universe of both spirit and matter. And our main conclusion so far must be this. It is evidently useless to raise such questions about the object of natural science, when you have not settled in your mind what that object is, and when you supply no principle on which we can decide in what its reality consists.

But turning from this confusion, and once more approaching the question from, I trust, a more rational ground, I will try to make a brief answer. Into the special features and limits of the beautiful in Nature I cannot enter. And I cannot discuss how far, and in what sense, the physical world is included in the true object of religion. These are special enquiries which

fall without the scope of my volume. But whether Nature is beautiful or adorable at all, and whether it possesses such attributes really and in truth, — to the question, asked thus in general, we may answer, Yes. We have seen that Nature, regarded as bare matter, is a mere convenient abstraction (Chapter xxii). The addition of secondary qualities, the included relation to a body and to a soul, in making Nature more concrete makes it thereby more real.[1] The sensible life, the warmth and color, the odor and the tones, without these Nature is a mere intellectual fiction. The primary qualities are a construction demanded by science, but, while divorced from the secondary, they have no life as facts. Science has a Hades from which it returns to interpret the world, but the inhabitants of its Hades are merely shades. And, when the secondary qualities are added, Nature, though more real, is still incomplete. The joys and sorrows of her children, their affections and their thoughts — how are we to say that these have no part in the reality of Nature? Unless to a mind restricted by a principle the limitation would be absurd, and our main principle on the other hand insists that Nature, when more full, is more real. And this same principle will carry us on to a further conclusion. The emotions, excited by Nature in the considering soul, must at least in part be referred to, and must be taken as attributes of Nature. If there is no beauty there, and if the sense of that is to fall somewhere outside, why in the end should there be any qualities in Nature at all? And, if no emotional tone is to qualify Nature, how and on what principle are we to attribute to it anything else whatever? Everything there without exception is "subjective," if we are to regard the matter so; and an emotional tone cannot, solely on this account, be excluded from Nature. And, otherwise, why should it not have reality there as a genuine quality? For myself I must follow the same principle and can accept the fresh consequence. The Nature that we have lived in, and that we love, is really

[1] I do not think it necessary to restate any qualification required here by parts of Nature taken as not perceived. I have dealt with this sufficiently in Chapters xxii and xxiv.

Nature. Its beauty and its terror and its majesty are no illusion, but qualify it essentially. And hence that, in which at our best moments we all are forced to believe, is the literal truth.

This result, however, needs some qualification from another side. It is certain that everything is determined by the relations in which it stands. It is certain that, with increase of determinateness, a thing becomes more and more real. On the other hand anything, fully determined, would be the Absolute itself. There is a point where increase of reality implies passage beyond self. A thing by enlargement becomes a mere factor in the whole next above it; and, in the end, all provinces and all relative wholes cease to keep their separate characters. We must not forget this while considering the reality of Nature. By gradual increase of that reality you reach a stage at which Nature, as such, is absorbed. Or, as you reflect on Nature, your object identifies itself gradually with the universe or Absolute. And the question arises at what point, when we begin to add psychical life or to attribute spiritual attributes to Nature, we have ceased to deal with Nature in any proper sense of that term. Where do we pass from Nature, as an outlying province in the kingdom of things, to Nature as a suppressed element in a higher unity? These enquiries are demanded by philosophy, and their result would lead to clearer conclusions about the qualities of Nature. I can do no more than allude to them here, and the conclusion, on which I insist, can in the main be urged independently. Nothing is lost to the Absolute, and all appearances have reality. The Nature, studied by the observer and by the poet and painter, is in all its sensible and emotional fulness a very real Nature. It is in most respects more real than the strict object of physical science. For Nature, as the world whose real essence lies in primary qualities, has not a high degree of reality and truth. It is a mere abstraction made and required for a certain purpose. And the object of natural science may either mean this skeleton, or it may mean the skeleton made real by blood and flesh of secondary qualities. Hence, before we dwell on the feelings Nature calls for from us, it would be better to know in what sense we are using

the term. But the boundary of Nature can hardly be drawn even at secondary qualities. Or, if we draw it there, we must draw it arbitrarily, and to suit our convenience. Only on this ground can psychical life be excluded from Nature, while, regarded otherwise, the exclusion would not be tenable. And to deny æsthetic qualities in Nature, or to refuse it those which inspire us with fear or devotion, would once more surely be arbitrary. It would be a division introduced for a mere working theoretical purpose. Our principle, that the abstract is the unreal, moves us steadily upward. It forces us first to rejection of bare primary qualities, and it compels us in the end to credit Nature with our higher emotions. That process can cease only where Nature is quite absorbed into spirit, and at every stage of the process we find increase in reality.

And this higher interpretation, and this eventual transcendence of Nature lead us to the discussion of another point which we mentioned above. Except in finite souls and except in volition may we suppose that ends operate in Nature, and is ideality, in any other sense, a working force there? How far such a point of view may be permitted in æsthetics or in the philosophy of religion, I shall not enquire. But considering the physical world as a mere system of appearances in space, are we on metaphysical grounds to urge the insufficiency of the mechanical view? In what form (if in any) are we to advocate a philosophy of Nature? On this difficult subject I will very briefly remark in passing.

The mechanical view plainly is absurd as a full statement of truth. Nature so regarded has not ceased at all (we may say) to be ideal, but its ideality throughout falls somewhere outside itself (Chapters xxii and xxiii). And that even for working purposes this view can everywhere be rigidly maintained, I am unable to assert. But upon one subject I have no doubts. Every special science must be left at liberty to follow its own methods, and, if the natural sciences reject every way of explanation which is not mechanical, that is not the affair of metaphysics. For myself, in other ways ignorant, I venture to

assume that these sciences understand their own business. But where, quite beyond the scope of any special science, assertions are made, the metaphysician may protest. He may insist that abstractions are not realities, and that working fictions are never more than useful fragments of truth. And on another point also he may claim a hearing. To adopt one sole principle of valid explanation, and to urge that, if phænomena are to be explicable, they must be explained by one method — this is of course competent to any science. But it is another thing to proclaim phænomena as already explained, or as explicable, where in certain aspects or in certain provinces they clearly are not explained, and where, perhaps, not even the first beginning of an explanation has been made. In these lapses or excursions beyond its own limits natural science has no rights. But within its boundaries I think every wise man will consider it sacred. And this question of the operation of Ends in Nature is one which, in my judgment, metaphysics should leave untouched.

Is there then no positive task which is left to metaphysics, the accomplishment of which might be called a philosophy of Nature? I will briefly point out the field which seems to call for occupation. All appearances for metaphysics have degrees of reality. We have an idea of perfection or of individuality; and, as we find that any form of existence more completely realizes this idea, we assign to it its position in the scale of being. And in this scale (as we have seen) the lower, as its defects are made good, passes beyond itself into the higher. The end, or the absolute individuality, is also the principle. Present from the first it supplies the test of its inferior stages, and, as these are included in fuller wholes, the principle grows in reality. Metaphysics in short can assign a meaning to perfection and progress. And hence, if it were to accept from the sciences the various kinds of natural phænomena, if it were to set out these kinds in an order of merit and rank, if it could point out how within each higher grade the defects of the lower are made good, and how the principle of the lower grade is carried out in the higher — metaphysics surely would have contributed to

the interpretation of Nature. And, while myself totally incapable of even assisting in such work, I cannot see how or on what ground it should be considered unscientific. It is doubtless absurd to wear the airs of systematic omniscience. It is worse than absurd to pour scorn on the detail and on the narrowness of devoted specialism. But to try to give system from time to time to the results of the sciences, and to attempt to arrange these on what seems a true principle of worth, can be hardly irrational.

Such a philosophy of Nature, if at least it were true to itself, could not intrude on the province of physical science. For it would, in short, abstain wholly and in every form from speculation on genesis. How the various stages of progress come to happen in time, in what order or orders they follow, and in each case from what causes, these enquiries would, as such, be no concern of philosophy. Its idea of evolution and progress in a word should not be temporal. And hence a conflict with the sciences upon any question of development or of order could not properly arise. "Higher" and "lower," terms which imply always a standard and end, would in philosophy be applied solely to designate rank. Natural science would still be free, as now, to use, or even to abuse, such terms at its pleasure, and to allow them any degree of meaning which is found convenient. Progress for philosophy would never have any temporal sense, and it could matter nothing if the word elsewhere seemed to bear little or no other. With these brief remarks I must leave a subject which deserves serious attention.

In a complete philosophy the whole world of appearance would be set out as a progress. It would show a development of principle though not a succession in time. Every sphere of experience would be measured by the absolute standard, and would be given a rank answering to its own relative merits and defects. On this scale pure Spirit would mark the extreme most removed from lifeless Nature. And, at each rising degree of this scale, we should find more of the first character with less of the second. The ideal of spirit, we may say, is directly opposite to mechanism. Spirit is a unity of the manifold in which

the externality of the manifold has utterly ceased. The universal here is immanent in the parts, and its system does not lie somewhere outside and in the relations between them. It is above the relational form and has absorbed it in a higher unity, a whole in which there is no division between elements and laws. And, since this principle shows itself from the first in the inconsistencies of bare mechanism,[1] we may say that Nature at once is realized and transmuted by spirit. But each of these extremes, we must add, has no existence as fact. The sphere of dead mechanism is set apart by an act of abstraction, and in that abstraction alone it essentially consists. And, on the other hand, pure spirit is not realized except in the Absolute. It can never appear as such and with its full character in the scale of existence. Perfection and individuality belong only to that Whole in which all degrees alike are at once present and absorbed. This one Reality of existence can, as such, nowhere exist among phænomena. And it enters into, but is itself incapable of, evolution and progress.

[1] The defect and the partial supersession of mere mechanical law has been touched on in Chapters xxii and xxiii. It would be possible to add a good deal more on this head.

JOSIAH ROYCE

(1855–1916)

THE SPIRIT OF MODERN PHILOSOPHY

*LECTURE XI. REALITY AND IDEALISM:— THE INNER WORLD AND ITS MEANING**

I

I AM very sorry that I cannot state my idealism in a simple and unproblematic form; but the nature of the doctrine forbids. I must first of all puzzle you with a paradox, by saying that my idealism has nothing in it which contradicts the principal propositions of what is nowadays called scientific Agnosticism, in so far, namely, as this agnosticism relates to that world of facts of experience which man sees and feels and which science studies. Of such agnosticism we learned something in our last lecture. But I must go on to say that the fault of our modern so-called scientific agnosticism is only that it has failed to see how the world in space and time, the world of causes and effects, the world of matter and of finite mind, whereof we know so little and long to know so much, is a very subordinate part of reality. It will be my effort to explain how we do know something very deep and vital about what reality is in its innermost essence. My explanation will indeed be very poor and fragmentary, but the outcome of it will be the very highly paradoxical assertion that while the whole finite world is full of dark problems for us, there is absolutely nothing, not even the immediate facts of our sense at this moment, so clear, so certain, as the existence and the unity of that infinite conscious Self of whom we have now heard so much. About the finite world, as I shall assert, we know in general only what experience teaches us and science records. There is nothing in the universe ab-

* Reprinted from Josiah Royce's *The Spirit of Modern Philosophy.* Boston, Houghton Mifflin Company. 1892.

solutely sure except the Infinite. That will be the curious sort of agnosticism that I shall try in a measure to expound. Of the infinite we know that it is one and conscious. Of the finite things, that is, of the particular fashions of behavior in terms of which the infinite Consciousness gives himself form and plays the world-game, we know only what we experience. Yet doubtless it will at once seem to you that in *one* important respect my announced doctrine is in obvious conflict with a wise agnosticism. For is it not confessedly anthropomorphic in its character? And is not anthropomorphism precisely the defect that modern thinkers have especially taught us to avoid?

Anthropomorphism was the savage view, which led primitive man to interpret extraordinary natural events as expressions of the will of beings like himself. However he came by his fancy, whether by first believing in the survival of the ghosts of his ancestors, and then conceiving them as the agents who produced lightning, and who moved the sun, or by a simple and irreducible instinct of his childish soul, leading him to see himself in nature, and to regard it all as animate; in any case he made the bad induction, created the gods in his own image, and then constituted them as the causes of all natural events. His ignorant self-multiplication we must avoid. Shall our limited inner experience be the only test of what sorts of causation may exist in the world? What we know is that events happen to us, and happen in a certain fixed order. We do not know the ultimate causes of these events. If we lived on some other planet, doubtless causes of a very novel sort would become manifest to us, and our whole view of nature would change. It is self-contradictory, it is absurd, to make our knowledge the measure of all that is! The real world that causes our experience is a great x, wholly unknown to us except in a few select phenomena, which happen to fall within our ken. How wild to guess about the mysteries of the infinite!

But now *this* agnosticism, too, as I assure you, I ardently and frankly agree with, so far as it concerns itself with precisely *that* world in which it pretends to move, and to which it undertakes

to apply itself. I have no desire to refute it. Touching all the world in space and time beyond experience, in the scientific sense of the term experience, I repeat that I know nothing positive. I know, for instance, nothing about the stratification of Saturn, or the height of the mountains on the other side of the moon. For the same reason, also, I know nothing of any anthropomorphic dæmons or gods here or there in nature, acting as causes of noteworthy events. Of these I know nothing, because science has at present no need for such hypotheses. There may be such beings; there doubtless are in nature many curious phenomena; but what curiosities further experience might show us, we must wait for experience to point out ere we shall know. I repeat, in its own world, agnosticism is in all these respects in the right. For reasons that you will later see, I object indeed to the unhappy word *unknowable*. In the world of experience, as in the world of abstracter problems, there are infinitely numerous things unknown to us. But there is no rational question that could not somehow be answered by a sufficiently wise person. There are things relatively unknowable for us, not things absolutely so. There are numberless experiences that I shall never have, in my individual capacity; and there are numberless problems that I shall never solve. But the only absolute insoluble mysteries, as I shall hereafter point out to you, would be the questions that it is essentially absurd to ask. Still, not to quarrel over words, what many agnostics mean by unknowable is simply the stubbornly unknown, and, in that sense, I fully agree and indeed insist that human knowledge is an island in the vast ocean of mystery, and that numberless questions, which it deeply concerns humanity to answer, will never be answered so long as we are in our present limited state, bound to one planet, and left for our experience to our senses, our emotions, and our moral activities.

But, if I thus accept this agnostic view of the world of experience, what chance is left, you will say, for anything like an absolute system of philosophy? In what sense can I pretend to talk of idealism, as giving any final view of the whole nature of things? In what sense, above all, can I pretend to be a

theist, and to speak of the absolute Self as the very essence and life of the whole world? For is this not mere anthropomorphism? Isn't it making our private human experience the measure of all reality? Isn't it making hypotheses in terms of our experience, about things beyond our experience? Isn't it making our petty notions of causation a basis for judging of the nature of the unknown first cause? Isn't it another case of what the savage did when he saw his gods in the thunder-clouds, because he conceived that causes just like his own angry moods must be here at work? Surely, at best, this is sentiment, faith, mystical dreaming. It can't be philosophy.

I answer, just to change our whole view of the deeper reality of things, just to turn away our attention from any illusive search for first causes in the world of experience, just to get rid of fanciful faith about the gods in outer nature, and just to complete the spiritual task of agnosticism by sending us elsewhere than to phenomena for the true and inner nature of things, — for just this end was the whole agony of modern philosophy endured by those who have wrestled with its problems. Is any one agnostic about the finite world? Then I more. I know nothing of any first cause in the world of appearances yonder. I see no gods in the thunder-clouds, no Keplerian angels carrying the planets in conic sections around the sun; I imagine no world-maker far back in the ages, beginning the course of evolution. Following Laplace, I need, once more, no such hypothesis. I await the verdict of science about all facts and events in physical nature. And yet that is just *why* I am an idealist. It is my agnosticism about the causes of my experience that makes me search elsewhere than amongst causes for the meaning of experience. The outer world which the agnostic sees and despairs of knowing is not the region where I look for light. The living God, whom idealism knows, is not the first cause in any physical sense, at all. No possible experience could find him as a thing amongst things or show any outer facts that would prove his existence. He isn't anywhere in space or in time. He makes from without no worlds. He is no hypothesis of empirical science. But he is all the more real for that, and

his existence is all the surer. For causes are, after all, very petty and subordinate truths in the world, and facts, phenomena, as such, could never demonstrate any important spiritual truth. The absolute Self simply doesn't *cause* the world. The very idea of causation belongs to things of finite experience, and is only a mythological term when applied to the real truth of things. Not because I interpret the causes of my experience in terms of my limited ideas of causation is the universe of God a live thing to me, but for a far deeper reason; for a reason which deprives this world of agnosticism of all substantiality and converts it once for all into mere show. I am ignorant of this world just because it is a show-world.

And this deeper reason of the idealist I may as well first suggest in a form which may perhaps seem just now even more mysterious than the problem which I solve by means of it. My reason for believing that there is one absolute World-Self, who embraces and is all reality, whose consciousness includes and infinitely transcends our own, in whose unity all the laws of nature and all the mysteries of experience must have their solution and their very being, — is simply that the profoundest agnosticism which you can possibly state in any coherent fashion, the deepest doubt which you can any way formulate about the world or the things that are therein, already presupposes, implies, demands, asserts, the existence of such a World-Self. The agnostic, I say, already asserts this existence — unconsciously, of course, as a rule, but none the less inevitably. For, as we shall find, there is no escape from the infinite Self except by self-contradiction. Ignorant as I am about first causes, I am at least clear, therefore, about the Self. If you deny him, you already in denying affirm him. You reckon ill when you leave him out. "Him when you fly, he is the wings." He is the doubter and the doubt. You in vain flee from his presence. The wings of the morning will not aid you. Nor do I mean all this now as any longer a sort of mysticism. This truth is, I assure you, simply a product of dry logic. When I try to tell you about it in detail, I shall weary you by my wholly unmystical analysis of commonplaces. Here is, in fact, as we shall soon

find, the very presupposition of presuppositions. You cannot stir, nay, you cannot even stand still in thought without it. Nor is it an unfamiliar idea. On the contrary, philosophy finds trouble in bringing it to your consciousness merely *because* it is so familiar. When they told us in childhood that we could not see God just *because* he was everywhere, just because his omnipresence gave us no chance to discern him and to fix our eyes upon him, they told us a deep truth in allegorical fashion. The infinite Self, as we shall learn, is actually asserted by you in every proposition you utter, is there at the heart, so to speak, of the very multiplication table. The Self is so little a thing merely guessed at as the unknowable source of experience, that already, *in* the very least of daily experiences you unconsciously know him as something present. This, as we shall find, is the deepest tragedy of our finitude, that continually he comes to his own, and his own receive him not, that he becomes flesh in every least incident of our lives; whilst we, gazing with wonder upon his world, search here and there for first causes, look for miracles, and beg him to show us the Father, since that alone will suffice us. No wonder that thus we have to remain agnostics. "Hast thou been so long time with me, and yet hast thou not *known* me?" Such is the eternal answer of the Logos to every doubting question. Seek him not as an outer hypothesis to explain experience. Seek him not anywhere yonder in the clouds. He is no "thing in itself." But for all that, experience contains him. He is the reality, the soul of it. "Did not our heart burn within us while he talked with us by the way?" And, as we shall see, he does not talk merely to our hearts. He reveals himself to our coolest scrutiny.

II

But enough of speculative boasting. Coming to closer quarters with my topic, I must remind you that idealism has two aspects. It is, for the first, a kind of analysis of the world, an analysis which so far has no absolute character about it, but which undertakes, in a fashion that might be acceptable to any skeptic, to examine what you mean by all the things, whatever

they are, that you believe in or experience. This idealistic analysis consists merely in a pointing out, by various devices, that the world of your knowledge, whatever it contains, is through and through such stuff as ideas are made of, that you never in your life believed in anything definable *but* ideas, that, as Berkeley put it, "this whole choir of heaven and furniture of earth" is nothing for any of us but a system of ideas which govern our belief and our conduct. Such idealism has numerous statements, interpretations, embodiments: forms part of the most various systems and experiences, is consistent with Berkeley's theism, with Fichte's ethical absolutism, with Professor Huxley's agnostic empiricism, with Clifford's mind-stuff theory, with countless other theories that have used such idealism as a part of their scheme. In this aspect idealism is already a little puzzling to our natural consciousness, but it becomes quickly familiar, in fact almost commonplace, and seems after all to alter our practical faith or to solve our deeper problems very little.

The other aspect of idealism is the one which gives us our notion of the absolute Self. To it the first is only preparatory. This second aspect is the one which from Kant, until the present time, has formed the deeper problem of thought. Whenever the world has become more conscious of its significance, the work of human philosophy will be, not nearly ended (Heaven forbid an end), but for the first time fairly begun. For then, in critically estimating our passions, we shall have some truer sense of whose passions they are.

I begin with the first and the less significant aspect of idealism. Our world, I say, whatever it may contain, is such stuff as ideas are made of. This preparatory sort of idealism is the one that, as I just suggested, Berkeley made prominent, and after a fashion familiar. I must state it in my own way, although one in vain seeks to attain novelty in illustrating so frequently described a view.

Here, then, is our so real world of the senses, full of light and warmth and sound. If anything could be solid and external, surely, one at first will say, it is this world. Hard facts, not

mere ideas, meet us on every hand. Ideas any one can mould as he wishes. Not so facts. In idea socialists can dream out Utopias, disappointed lovers can imagine themselves successful, beggars can ride horses, wanderers can enjoy the fireside at home. In the realm of facts, society organizes itself as it must, rejected lovers stand for the time defeated, beggars are alone with their wishes, oceans roll drearily between home and the wanderer. Yet this world of fact is, after all, not entirely stubborn, not merely hard. The strenuous will can mould facts. We can form our world, in part, according to our ideas. Statesmen influence the social order, lovers woo afresh, wanderers find the way home. But thus to alter the world we must work, and just because the laborer is worthy of his hire, it is well that the real world should thus have such fixity of things as enables us to anticipate what facts will prove lasting, and to see of the travail of our souls when it is once done. This, then, is the presupposition of life, that we work in a real world, where house-walls do not melt away as in dreams, but stand firm against the winds of many winters, and can be felt as real. We do not wish to find facts wholly plastic; we want them to be stubborn, if only the stubbornness be not altogether unmerciful. Our will makes constantly a sort of agreement with the world, whereby, if the world will continually show some respect to the will, the will shall consent to be strenuous in its industry. Interfere with the reality of my world, and you therefore take the very life and heart out of my will.

The reality of the world, however, when thus defined in terms of its stubbornness, its firmness as against the will that has not conformed to its laws, its kindly rigidity in preserving for us the fruits of our labors, — such reality, I say, is still something wholly unanalyzed. In what does this stubbornness consist? Surely, many different sorts of reality, as it would seem, may be stubborn. Matter is stubborn when it stands in hard walls against us, or rises in vast mountain ranges before the path-finding explorer. But minds can be stubborn also. The lonely wanderer, who watches by the seashore the waves that roll between him and his home, talks of cruel facts, mate-

rial barriers that, just because they *are* material, and not ideal, shall be the irresistible foes of his longing heart. "In wish," he says, "I am with my dear ones, but alas, wishes cannot cross oceans! Oceans are material facts, in the cold outer world. Would that the world of the heart were all!" But alas! to the rejected lover the world of the heart *is* all, and that is just his woe. Were the barrier between him and his beloved only made of those stubborn material facts, only of walls or of oceans how lightly might his will erelong transcend them all! Matter stubborn! Outer nature cruelly the foe of ideas! Nay, it is just an idea that now opposes him, — just an idea, and that, too, in the mind of the maiden he loves. But in vain does he call this stubborn bit of disdain a merely ideal fact. No flint was ever more definite in preserving its identity and its edge than this disdain may be. Place me for a moment, then, in an external world that shall consist wholly of ideas, — the ideas, namely, of other people about me, a world of maidens who shall scorn me, of old friends who shall have learned to hate me, of angels who shall condemn me, of God who shall judge me. In what piercing north winds, amidst what fields of ice, in the labyrinths of what tangled forests, in the depths of what thick-walled dungeons, on the edges of what tremendous precipices, should I be more genuinely in the presence of stubborn and unyielding facts than in that conceived world of ideas! So, as one sees, I by no means deprive my world of stubborn reality, if I merely call it a world of ideas. On the contrary, as every teacher knows, the ideas of the people are often the most difficult of facts to influence. We were wrong, then, when we said that whilst matter was stubborn, ideas could be moulded at pleasure. Ideas are often the most implacable of facts. Even my own ideas, the facts of my own inner life, may cruelly decline to be plastic to my wish. The wicked will that refuses to be destroyed, — what rock has often more consistency for our senses than this will has for our inner consciousness! The king, in his soliloquy in "Hamlet," — in what an unyielding world of hard facts does he not move! and yet they are now only inner facts. The fault is past; he is alone with his conscience.

"What rests?
Try what repentance can. What can it not?
Yet what can it, when one cannot repent?
O wretched state! O bosom black as death!
O limëd soul, that, struggling to be free,
Art more engaged!"

No, here are barriers worse than any material chains. The world of ideas has its own horrible dungeons and chasms. Let those who have refuted Bishop Berkeley's idealism by the wonder why he did not walk over every precipice or into every fire if these things existed only in his idea, let such, I say, first try some of the fires and the precipices of the inner life, ere they decide that dangers cease to be dangers as soon as they are called ideal, or even subjectively ideal in me.

Many sorts of reality, then, may be existent at the heart of any world of facts. But this bright and beautiful sense-world of ours, — what, amongst these many possible sorts of reality, does that embody? Are the stars and the oceans, the walls and the pictures, real as the maiden's heart is real, — embodying the ideas of somebody, but none the less stubbornly real for that? Or can we make something else of their reality? For, of course, that the stars and the oceans, the walls and the pictures have *some* sort of stubborn reality, just as the minds of our fellows have, our analysis so far does not for an instant think of denying. Our present question is, what sort of reality? Consider, then, in detail, certain aspects of the reality that seems to be exemplified in our sense-world. The sublimity of the sky, the life and majesty of the ocean, the interest of a picture, — to what sort of real facts do these belong? Evidently here we shall have no question. So far as the sense-world is beautiful, is majestic, is sublime, this beauty and dignity exist only for the appreciative observer. If they exist beyond him, they exist only for some other mind, or as the thought and embodied purpose of some universal soul of nature. A man who sees the same world, but who has no eye for the fairness of it, will find all the visible facts, but will catch nothing of their value. At once, then, the sublimity and beauty of the world are thus truths that one who pretends to insight ought to see, and they

are truths which have no meaning except for such a beholder's mind, or except as embodying the thought of the mind of the world. So here, at least, is so much of the outer world that is ideal, just as the coin or the jewel or the bank-note or the bond has its value not alone in its physical presence, but in the idea that it symbolizes to a beholder's mind, or to the relatively universal thought of the commercial world. But let us look a little deeper. Surely, if the objects yonder are unideal and outer, odors and tastes and temperatures do not exist in these objects in just the way in which they exist in us. Part of the being of these properties, at least, if not all of it, is ideal and exists for us, or at best is once more the embodiment of the thought or purpose of some world-mind. About tastes you cannot dispute, because they are not only ideal but personal. For the benumbed tongue and palate of diseased bodily conditions, all things are tasteless. As for temperatures, a well-known experiment will show how the same water may seem cold to one hand and warm to the other. But even so, colors and sounds are at least in part ideal. Their causes may have some other sort of reality; but colors themselves are not in the things, since they change with the light that falls on the things, vanish in the dark (whilst the things remained unchanged), and differ for different eyes. And as for sounds, both the pitch and the quality of tones depend for us upon certain interesting peculiarities of our hearing organs, and exist in nature only as voiceless sound-waves trembling through the air. All such sense qualities, then, are ideal. The world yonder may — yes, must — have attributes that give reasons why these qualities are thus felt by us; for so we assume. The world yonder may even be a mind that thus expresses its will to us. But these qualities need not, nay, cannot resemble the ideas that are produced in us, unless, indeed, that is because these qualities have place as ideas in some world-mind. Sound-waves in the air are not like our musical sensations; nor is the symphony as we hear it and feel it any physical property of the strings and the wind instruments; nor are the ether-vibrations that the sun sends us like our ideas when we see the sun; nor yet is the flash-

ing of moonlight on the water as we watch the waves a direct expression of the actual truths of fluid motion as the water embodies them.

Unless, then, the real physical world yonder is itself the embodiment of some world-spirit's ideas, which he conveys to us, unless it is real only as the maiden's heart is real, namely, as itself a conscious thought, then we have so far but one result: that real world (to repeat one of the commonplaces of modern popular science) is in itself, apart from somebody's eyes and tongue and ears and touch, neither colored nor tasteful, neither cool nor warm, neither light nor dark, neither musical nor silent. All these qualities belong to our ideas, being indeed none the less genuine facts for that, but being in so far ideal facts. We must see colors when we look, we must hear music when there is playing in our presence; but this *must* is a must that consists in a certain irresistible presence of an idea in us under certain conditions. *That* this idea must come is, indeed, a truth as unalterable, once more, as the king's settled remorse in Hamlet. But like this remorse, again, it exists as an ideal truth, objective, but through and through objective *for* somebody, and not *apart from* anybody. What this truth implies we have yet to see. So far it is only an ideal truth for the beholder, with just the bare possibility that behind it all there is the thought of a world-spirit. And, in fact, *so* far we must all go together if we reflect.

But now, at this point, the Berkeleyan idealist goes one step further. The real outside world that is still left unexplained and unanalyzed after its beauty, its warmth, its odors, its tastes, its colors, and its tones, have been relegated to the realm of ideal truths, what do you now *mean* by calling it real? No doubt it *is* known as somehow real, but *what* is this reality *known as* being? If you know that this world is still there and outer, as by hypothesis you know, you are bound to say *what* this outer character implies for your thought. And here you have trouble. Is the outer world, as it exists outside of your ideas, or of anybody's ideas, something having shape, filling space, possessing solidity, full of moving things? That would in the first place

seem evident. The sound isn't outside of me, but the sound-waves, you say, are. The colors are ideal facts; but the ether-waves don't need a mind to know them. Warmth is ideal, but the physical fact called heat, this playing to and fro of molecules, is real, and is there apart from any mind. But once more, *is* this so evident? What do I *mean* by the shape of anything, or by the size of anything? Don't I mean just the idea of shape or of size that I am obliged to get under certain circumstances? What is the meaning of any property that I give to the real outer world? How can I express that property except in case I think it in terms of my ideas? As for the sound-waves and the ether-waves, what are they but things ideally conceived to explain the facts of nature? The conceptions have doubtless their truth, but it is an ideal truth. What I mean by saying that the things yonder have shape and size and trembling molecules, and that there is air with sound-waves, and ether with light-waves in it, — what I *mean* by all this is that experience forces upon me, directly or indirectly, a vast system of ideas, which may indeed be founded in truth beyond me, which in fact *must* be founded in such truth if my experience has any sense, but which, like my ideas of color and of warmth, are simply expressions of how the world's order must appear to me, and to anybody constituted like me. Above all, is this plain about space. The real things, I say, outside of me, fill space, and move about in it. But what do I mean by space? Only a vast system of ideas which experience and my own mind force upon me. Doubtless these ideas have a validity. They have *this* validity, that I, at all events, when I look upon the world, am bound to see it in space, as much bound as the king in Hamlet was, when he looked within, to see himself as guilty and unrepentant. But just as his guilt was an idea, — a crushing, an irresistible, an overwhelming idea, — but still just an idea, so, too, the space in which I place my world is one great formal idea of mine. That is just why I can describe it to other people. "It has three dimensions," I say, "length, breadth, depth." I describe each. I form, I convey, I construct, an idea of it through them. I know space, as an idea, very well. I can com

pute all sorts of unseen truths about the relations of its parts. I am sure that you, too, share this idea. But, then, for all of us alike it is just an idea; and when we put our world into space, and call it real there, we simply think one idea into another idea, not voluntarily, to be sure, but inevitably, and yet without leaving the realm of ideas.

Thus, all the reality that *we* attribute to our world, in so far as *we* know and can tell what we mean thereby, becomes ideal. There is, in fact, a certain system of ideas, forced upon us by experience, which we have to use as the guide of our conduct. This system of ideas we can't change by our wish; it is for us as overwhelming a fact as guilt, or as the bearing of our fellows towards us, but we know it only *as* such a system of ideas. And we call it the world of matter. John Stuart Mill very well expressed the puzzle of the whole thing, as we have now reached the statement of this puzzle, when he called matter a mass of "permanent possibilities of experience" for each of us. Mill's definition has its faults, but it is a very fair beginning. You know matter as something that either now gives you this idea or experience, or that would give you some other idea or experience under other circumstances. A fire, while it burns, is for you a permanent possibility of either getting the idea of an agreeable warmth, or of getting the idea of a bad burn, and you treat it accordingly. A precipice amongst mountains is a permanent possibility of your experiencing a fall, or of your getting a feeling of the exciting or of the sublime in mountain scenery. You have no experience just now of the tropics or of the poles, but both tropical and polar climates exist in your world as permanent possibilities of experience. When you call the sun 92,000,000 miles away, you mean that between you and the sun (that is, between your present experience and the possible experience of the sun's surface) there would inevitably lie the actually inaccessible, but still numerically conceivable series of experiences of distance expressed by the number of miles in question. In short, your whole attitude towards the real world may be summed up by saying: "I have experiences now which I seem bound to have, experiences of color,

sound, and all the rest of my present ideas; and I am also bound by experience to believe that in case I did certain things (for instance, touched the wall, traveled to the tropics, visited Europe, studied physics), I then should get, in a determinate order, dependent wholly upon *what* I had done, certain other experiences (for instance, experiences of the wall's solidity, or of a tropical climate, or of the scenes of an European tour, or of the facts of physics)." And this acceptance of actual experience, this belief in possible experience, constitutes all that you mean by your faith in the outer world.

But, you say, Is not, then, all this faith of ours after all well founded? Isn't there really something yonder that corresponds in fact to this series of experiences in us? Yes, indeed, there no doubt is. But what if this, which so shall correspond without us to the ideas within us, what if this hard and fast reality should itself be a system of ideas, outside of our minds but not outside of every mind? As the maiden's disdain is outside the rejected lover's mind, unchangeable so far for him, but not on that account the less ideal, not the less a fact in a mind, as, to take afresh a former fashion of illustration, the price of a security or the objective existence of this lecture is an ideal fact, but real and external for the individual person, — even so why might not this world beyond us, this "permanent possibility of experience," be in essence itself a system of ideal experiences of some standard thought of which ours is only the copy? Nay, must it not be such a system in case it has any reality at all? For, after all, isn't this precisely what our analysis brings us to? Nothing whatever can I say about my world yonder that I do not express in terms of mind. *What* things are, extended, moving, colored, tuneful, majestic, beautiful, holy, *what* they are in any aspect of their nature, mathematical, logical, physical, sensuously pleasing, spiritually valuable, all this must mean for me only something that I have to express in the fashion of ideas. The more I am to know my world, the more of a mind I must have for the purpose. The closer I come to the truth about the things, the more ideas I get. Isn't it plain, then, that *if* my world yonder is anything knowable at all, it must be in and for

itself essentially a mental world? Are my ideas to *resemble* in any way the world? Is the truth of my thought to consist in its *agreement* with reality? And am I thus capable, as common sense supposes, of *conforming* my ideas to things? Then reflect. What can, after all, so well agree with an idea as another idea? To what can things that go on in my mind conform unless it be to another mind? If the more my mind grows in mental clearness, the nearer it gets to the nature of reality, then surely the reality that my mind thus resembles must be in itself mental.

After all, then, would it deprive the world here about me of reality, nay, would it not rather save and assure the reality and the knowableness of my world of experience, if I said that this world, as it exists outside of my mind, and of any other human minds, exists in and for a standard, an universal mind, whose system of ideas simply constitutes the world? Even if I fail to prove that there is such a mind, do I not at least thus make plausible that, as I said, our world of common sense has no fact in it which we cannot interpret in terms of ideas, so that this world is throughout such stuff as ideas are made of? To say this, as you see, in no wise deprives our world of its due share of reality. If the standard mind knows now that its ideal fire has the quality of burning those who touch it, and if I in my finitude am bound to conform in my experiences to the thoughts of this standard mind, then in case I touch that fire I shall surely get the idea of a burn. The standard mind will be at least as hard and fast and real in its ideal consistency as is the maiden in her disdain for the rejected lover; and I, in presence of the ideal stars and the oceans, will see the genuine realities of fate as certainly as the lover hears his fate in the voice that expresses her will.

I need not now proceed further with an analysis that will be more or less familiar to many of you, especially after our foregoing historical lectures. What I have desired thus far is merely to give each of you, as it were, the sensation of being an idealist in this first and purely analytical sense of the word idealism. The sum and substance of it all is, you see, this: you

know your world in fact as a system of ideas about things, such that from moment to moment you find this system forced upon you by experience. Even matter you know just as a mass of coherent ideas that you cannot help having. Space and time, as you think them, are surely ideas of yours. Now, what more natural than to say that *if* this be so, the real world beyond you must in itself be a system of somebody's ideas? If it is, then you can comprehend what its existence means. If it isn't, then since all you can know of it is ideal, the real world must be utterly unknowable, a bare *x*. Minds I can understand, because I myself am a mind. An existence that has no mental attribute is wholly opaque to me. So far, however, from such a world of ideas, existent beyond me in another mind, seeming to coherent thought essentially *un*real, ideas and minds and their ways, are, on the contrary, the hardest and stubbornest facts that we can name. *If* the external world is in itself mental, then, be this reality a standard and universal thought, or a mass of little atomic minds constituting the various particles of matter, in any case one can comprehend what it is, and will have at the same time to submit to its stubborn authority as the lover accepts the reality of the maiden's moods. If the world *isn't* such an ideal thing, then indeed all our science, which is through and through concerned with our mental interpretations of things, can neither have objective validity, nor make satisfactory progress towards truth. For as science is concerned with ideas, the world beyond all ideas is a bare *x*.

III

But with this bare *x*, you will say, this analytical idealism after all leaves me, as with something that, spite of all my analyses and interpretations, may after all be there beyond me as the real world, which my ideas are vainly striving to reach, but which eternally flees before me. So far, you will say, what idealism teaches is that the real world can only be interpreted by treating it as if it were somebody's thought. So regarded, the idealism of Berkeley and of other such thinkers is very suggestive; yet it doesn't tell us what the true world is, but only

that *so much* of the true world as we ever get into our comprehension has to be conceived in ideal terms. Perhaps, however, whilst neither beauty, nor majesty, nor odor, nor warmth, nor tone, nor color, nor form, nor motion, nor space, nor time (all these being but ideas of ours), can be said to belong to the extra-mental world, — perhaps, after all, there does exist there yonder an extra-mental world, which has nothing to do, except by accident, with *any* mind, and which is through and through just extra-mental, something unknowable, inscrutable, the basis of experience, the source of ideas, but itself never experienced as it is in itself, never adequately represented by any idea in us. Perhaps it is there. Yes, you will say, *must* it not be there? Must not one accept our limitations once for all, and say, "What reality is, we can never hope to make clear to ourselves. That which has been made clear becomes an idea in us. But always there is the beyond, the mystery, the inscrutable, the real, the *x*. To be sure, perhaps we can't even know so much as that this *x* after all does exist. But then we feel bound to regard it as existent; or even if we doubt or deny it, may it not be there all the same?" In such doubt and darkness, then, this first form of idealism closes. If that were all there were to say, I should indeed have led you a long road in vain. Analyzing what the known world is for you, in case there is haply any world known to you at all, — this surely isn't proving that there is any real world, or that the real world can be known. Are we not just where we started?

No; there lies now just ahead of us the goal of a synthetic idealistic conception, which will not be content with this mere analysis of the colors and forms of things, and with the mere discovery that all these are for us nothing but ideas. In this second aspect, idealism grows bolder, and fears not the profoundest doubt that may have entered your mind as to whether there is any world at all, or as to whether it is in any fashion knowable. State in full the deepest problem, the hardest question about the world that your thought ever conceived. In this new form idealism offers you a suggestion that indeed will not wholly answer nor do away with every such problem, but

that certainly will set the meaning of it in a new light. What this new light is, I must in conclusion seek to illustrate.

Note the point we have reached. *Either*, as you see, your real world yonder is through and through a world of ideas, an outer mind that you are more or less comprehending through your experience, *or else*, in so far as it is real and outer it is unknowable, an inscrutable x, an absolute mystery. The dilemma is perfect. There is no third alternative. Either a mind yonder, or else the unknowable; that is your choice. Philosophy loves such dilemmas, wherein all the mightiest interests of the spirit, all the deepest longings of human passion, are at stake, waiting as for the fall of a die. Philosophy loves such situations, I say, and loves, too, to keep its scrutiny as cool in the midst of them as if it were watching a game of chess, instead of the great world-game. Well, try the darker choice that the dilemma gives you. The world yonder shall be an x, an unknowable something, outer, problematic, foreign, opaque. And you, — you shall look upon it and believe in it. Yes, you shall for argument's sake first put on an air of resigned confidence, and say, "I do not only fancy it to be an extra-mental and unknowable something there, an impenetrable x, but I know it to be such. I can't help it. I didn't make it unknowable. I regret the fact. But there it is. I have to admit its existence. But I know that I shall never solve the problem of its nature." Ah, its nature is a *problem*, then. But what do you mean by this "*problem*"? Problems are, after a fashion, rather familiar things, — that is, in the world of ideas. There are problems soluble and problems insoluble in that world of ideas. It is a soluble problem if one asks what whole number is the square root of 64. The answer is 8. It is an insoluble problem if one asks me to find what whole number is the square root of 65. There is, namely, no such whole number. If one asks me to name the length of a straight line that shall be equal to the circumference of a circle of a known radius, that again, in the world of ideas, is an insoluble problem, because, as can be proved, the circumference of a circle is a length that cannot possibly be exactly expressed in terms of any statable number when the radius is of

a stated length. So in the world of ideas, problems are definite questions which can be asked in knowable terms. Fair questions of this sort either may be fairly answered in our present state of knowledge, or else they could be answered if we knew a little or a good deal more, or finally they could not possibly be answered. But in the latter case, if they could not possibly be answered, they always must resemble the problem how to square the circle. They then always turn out, namely, to be absurdly stated questions and it is their absurdity that makes these problems absolutely insoluble. Any fair question could be answered by one who knew enough. No fair question has an unknowable answer. But now, *if* your unknowable world out there is a thing of wholly, of absolutely problematic and inscrutable nature, is it so because you don't *yet* know enough about it, or because in its very nature and essence it is an absurd thing, an *x* that *would* answer a question, which actually it is nonsense to ask? Surely one must choose the former alternative. The real world may be unknown; it can't be essentially unknowable.

This subtlety is wearisome enough, I know, just here, but I shall not dwell long upon it. Plainly *if* the unknowable world out there is through and through in its nature a really inscrutable problem, this must mean that in nature it resembles such problems as, What is the whole number that is the square root of 65? Or, What two adjacent hills are there that have no valley between them? For in the world of thought such are the *only* insoluble problems. All others either may now be solved, or would be solved if we knew more than we now do. But, once more, *if* this unknowable is only just the real world as now unknown to us, but capable some time of becoming known, then remember that, as we have just seen, only a mind can ever become an object known to a mind. If I know you as external to me, it is only because you are minds. If I can come to know *any* truth, it is only in so far as this truth is essentially mental, is an idea, is a thought, that I can ever come to know it. Hence, if that so-called unknowable, that unknown outer world there, ever could, by any device, come within our ken, then it is al-

ready an ideal world. For just that is what our whole idealistic analysis has been proving. Only ideas are knowable. And nothing absolutely unknowable can exist. For the absolutely unknowable, the *x* pure and simple, the Kantian thing in itself, simply cannot be admitted. The notion of it is nonsense. The assertion of it is a contradiction. Round-squares, and sugar salt-lumps, and Snarks, and Boojums, and Jabberwocks, and Abracadabras; such, I insist, are the only unknowables there are. The unknown, that which our human and finite selfhood hasn't grasped, exists spread out before us in a boundless world of truth; but the unknowable is essentially, confessedly, *ipso facto* a fiction.

The nerve of our whole argument in the foregoing is now pretty fairly exposed. We have seen that the outer truth must be, if anything, a "possibility of experience." But we may now see that a *bare* "possibility" as such, is, like the unknowable, something meaningless. That which, whenever I come to know it, turns out to be through and through an idea, an experience, must be in itself, before I know it, either somebody's idea, somebody's experience, or it must be nothing. What is a "possibility" of experience that is outside of me, and that is still nothing *for* any one else than myself? Isn't it a bare *x*, a nonsense phrase? Isn't it like an unseen color, an untasted taste, an unfelt feeling? In proving that the world is one of "possible" experience, we have proved that in so far as it is real it is one of actual experience.

Once more, then, to sum up here, *if*, however vast the world of the unknown, only the essentially knowable can exist, and *if* everything knowable is an idea, a mental somewhat, the content of some mind, then once for all we are the world of ideas. Your deepest doubt proves this. Only the nonsense of that inscrutable *x*, of that Abracadabra, of that Snark, the Unknowable of whose essence you make your real world, prevents you from seeing this.

To return, however, to our dilemma. *Either* idealism, we said, *or* the unknowable. What we have now said is that the absolutely unknowable is essentially an absurdity, a non-

existent. For any fair and stable problem admits of an answer. *If* the world exists yonder, its essence is then already capable of being known by some mind. If capable of being known by a mind, this essence is then already essentially ideal and mental. A mind that knew the real world would, for instance, find it a something possessing qualities. But qualities are ideal existences, just as much as are the particular qualities called odors or tones or colors. A mind knowing the real world would again find in it relations, such as equality and inequality, attraction and repulsion, likeness and unlikeness. But such relations have no meaning except as objects of a mind. In brief, then, the world as known would be found to be a world that had all the while been ideal and mental, even before it became known to the particular mind that we are to conceive as coming into connection with it. Thus, then, we are driven to the second alternative. The real world must be a mind, or else a group of minds.

IV

But with this result we come in presence of a final problem. All this, you say, depends upon my assurance that there is after all a real and therefore an essentially knowable and rational world yonder. Such a world would have to be in essence a mind, or a world of minds. But after all, how does one ever escape from the prison of the inner life? Am I not in all this merely wandering amidst the realm of my own ideas? *My* world, of course, isn't and can't be a mere x, an essentially unknowable thing, just because it *is my* world, and I have an idea of it. But then does not this mean that *my* world is, after all, forever just *my* world, so that I never get to any truth beyond myself? Isn't this result very disheartening? My world is thus a world of ideas, but alas! how do I then ever reach those ideas of the minds beyond me?

The answer is a simple, but in one sense a very problematic one. You, in one sense, namely, never *do* or can get beyond your own ideas, nor ought you to wish to do so, because in truth all those other minds that constitute your outer and real

world are in essence one with your own self. This whole world of ideas is essentially *one* world, and so it is essentially the world of one self and *That art Thou.*

The truth and meaning of this deepest proposition of all idealism is now not at all remote from us. The considerations, however, upon which it depends are of the dryest possible sort, as commonplace as they are deep.

Whatever objects you may think about, whether they are objects directly known to you, or objects infinitely far removed, objects in the distant stars, or objects remote in time, or objects near and present, — such objects, then, as a number with fifty places of digits in it, or the mountains on the other side of the moon, or the day of your death, or the character of Cromwell, or the law of gravitation, or a name that you are just now trying to think of and have forgotten, or the meaning of some mood or feeling or idea now in your mind, — all such objects, I insist, stand in a certain constant and curious relation to your mind whenever you are thinking about them, — a relation that we often miss because it is so familiar. What is this relation? Such an object, while you think about it, needn't be, as popular thought often supposes it to be, the *cause* of your thoughts concerning it. Thus, when you think about Cromwell's character, Cromwell's character isn't just now *causing* any ideas in you, — isn't, so to speak, doing anything to you. Cromwell is dead, and after life's fitful fever his character is a very inactive thing. Not as the *cause*, but as the *object* of your thought is Cromwell present to you. Even so, if you choose now to think of the moment of your death, that moment is somewhere off there in the future, and you can make it your object, but it isn't now an active cause of your ideas. The moment of your death has no present physical existence at all, and just now causes nothing. So, too, with the mountains on the other side of the moon. When you make them the object of your thought, they remain indifferent to you. They do not affect you. You never saw them. But all the same you can think about them.

Yet this thinking *about* things is, after all, a very curious

relation in which to stand to things. In order to think *about* a thing, it is *not* enough that I should have an idea in me that merely resembles that thing. This last is a very important observation. I repeat, it is *not* enough that I should merely have an idea in me that resembles the thing whereof I think. I have, for instance, in me the idea of a pain. Another man has a pain just like mine. Say we both have toothache; or have both burned our finger-tips in the same way. Now my idea of pain is just like the pain in him, but I am not on that account necessarily thinking about *his* pain, merely because what I am thinking about, namely my own pain, resembles his pain. No; to think about an object you must not merely have an idea that resembles the object, but you must *mean* to have your idea resemble that object. Stated in other form, to think of an object you must consciously aim at that object, you must pick out that object, you must already in some measure possess that object enough, namely, to identify it as what you mean. But how can you *mean*, how can you *aim at*, how can you *possess*, how can you *pick out*, how can you *identify* what is not already present in essence to your own hidden self? Here is surely a deep question. When you aim at yonder object, be it the mountains in the moon or the day of your death, you really say, "I, as my real self, as my larger self, as my complete consciousness, already in deepest truth possess that object, have it, own it, identify it. And that, and that alone, makes it possible for me in my transient, my individual, my momentary personality, to mean yonder object, to inquire about it, to be partly aware of it and partly ignorant of it." You can't mean what is utterly foreign to you. You mean an object, you assert about it, you talk about it, yes, you doubt or wonder about it, you admit your private and individual ignorance about it, only in so far as your larger self, your deeper personality, your total of normal consciousness already *has* that object. Your momentary and private wonder, ignorance, inquiry, or assertion, about the object, implies, asserts, presupposes, that your total self is in full and immediate possession of the object. This, in fact, is the very nature of that curious relation of a thought to an ob-

ject which we are now considering. The self that is doubting or asserting, or that is even feeling its private ignorance about an object, and that still, even in consequence of all this, is *meaning*, is *aiming at* such object, is in essence identical with the self for which this object exists in its complete and consciously known truth.

So paradoxical seems this final assertion of idealism that I cannot hope in one moment to make it very plain to you. It is a difficult topic, about which I have elsewhere printed a very lengthy research,[1] wherewith I cannot here trouble you. But what I intend by thus saying that the self which thinks about an object, which really, even in the midst of the blindest ignorance and doubt concerning its object still means the object, — that this self is identical with the deeper self which possesses and truly knows the object, — what I intend hereby I can best illustrate by simple cases taken from your own experience. You are in doubt, say, about a name that you have forgotten, or about a thought that you just had, but that has now escaped you. As you hunt for the name or the lost idea, you are all the while sure that you mean just one particular name or idea and no other. But you don't yet know what name or idea this is. You try, and reject name after name. You query, "Was this what I was thinking of, or this?" But after searching you erelong find the name or the idea, and now at once you *recognize* it. "Oh, that," you say, "was what I meant all along, only — I didn't know what I meant." Did you know? Yes, in one sense you knew all the while, — that is, your deeper self, your true consciousness knew. It was your momentary self that did not know. But when you found the long-sought name, recalled the lost idea, you recognized it at once, because it was all the while your own, because you, the true and larger self, who owned the name or the idea and were aware of what it was, now were seen to include the smaller and momentary self that sought the name or tried to recall the thought. Your deeper consciousness of the lost idea was all the while there.

[1] See *The Religious Aspect of Philosophy* (Boston, 1885), ch. xi., "The Possibility of Error," pp. 384–435.

In fact, did you not presuppose this when you sought the lost idea? How can I mean a name, or an idea, unless I in truth am the self who knows the name, who possesses the idea? In hunting for the name or the lost idea, I am hunting for my own thought. Well, just so I know nothing about the far-off stars in detail, but in so far as I mean the far-off stars at all, as I speak of them, I am identical with that remote and deep thought of my own that already knows the stars. When I study the stars, I am trying to find out what I really mean by them. To be sure, only experience can tell me, but that is because only experience can bring me into relation with my larger self. The escape from the prison of the inner self is simply the fact that the inner self is through and through an appeal to a larger self. The self that inquires, either inquires without meaning, or if it has a meaning, this meaning exists in and for the larger self that knows.

Here is a suggestion of what I mean by Synthetic Idealism. No truth, I repeat, is more familiar. That I am always meaning to inquire into objects beyond me, what clearer fact could be mentioned? That only in case it is already I who, in deeper truth, in my real and hidden thought, *know* the lost object yonder, the object whose nature I seek to comprehend, that only in this case I can truly *mean* the thing yonder, — this, as we must assert, is involved in the very idea of *meaning*. That is the logical analysis of it. You can mean what your deeper self knows; you cannot mean what your deeper self doesn't know. To be sure, the complete illustration of this most critical insight of idealism belongs elsewhere. Few see the familiar. Nothing is more common than for people to think that they mean objects that have nothing to do with themselves. Kant it was, who, despite his things in themselves, first showed us that nobody really means an object, really knows it, or doubts it, or aims at it, unless he does so by aiming at a truth that is present to his own larger self. Except for the unity of my true self, taught Kant, I have no objects. And so it makes no difference whether I know a thing or am in doubt about it. So long as I really *mean* it, that is enough. The self that *means* the ob-

ject is identical with the larger self that possesses the object, just as when you seek the lost idea you are already in essence with the self that possesses the lost idea.

In this way I suggest to you the proof which a rigid analysis of the logic of our most commonplace thought would give for the doctrine that in the world there is but *one* Self, and that it is *his* world which we all alike are truly meaning, whether we talk of one another or of Cromwell's character or of the fixed stars or of the far-off æons of the future. The relation of my thought to its object has, I insist, this curious character, that *unless* the thought and its object are parts of one larger thought I can't even be *meaning* that object yonder, can't even be in error about it, can't even doubt its existence. You, for instance, are part of one larger self with me, or else I can't even be meaning to address you as outer beings. You are part of one larger self along with the most mysterious or most remote fact of nature, along with the moon, and all the hosts of heaven, along with all truth and all beauty. Else could you not even intend to speak of such objects beyond you. For whatever you speak of you will find that your world is meant by you as just your world. Talk of the unknowable, and it forthwith becomes your unknowable, your problem, whose solution, unless the problem be a mere nonsense question, your larger self must own and be aware of. The deepest problem of life is, "What is this deeper self?" And the only answer is, *It is the self that knows in unity all truth.* This, I insist, is no hypothesis. It is actually the presupposition of your deepest doubt. And that is why I say: Everything finite is more or less obscure, dark, doubtful. Only the Infinite Self, the problem-solver, the complete thinker, the one who knows what we mean even when we are most confused and ignorant, the one who includes us, who has the world present to himself in unity, before whom all past and future truth, all distant and dark truth is clear in one eternal moment, to whom far and forgot is near, who thinks the whole of nature, and in whom are all things, the Logos, the world-possessor, — only his existence, I say, is perfectly sure.

V

Yet I must not state the outcome thus confidently without a little more analysis and exemplification. Let me put the whole matter in a slightly different way. When a man believes that he knows any truth about a fact beyond his present and momentary thought, what is the position, with reference to that fact, which he gives himself? We must first answer, He believes that one who really knew his, the thinker's, thought, and compared it with the fact yonder, would perceive the agreement between the two. Is this *all*, however, that the believer holds to be true of his own thought? No, not so, for he holds not only that his thought, as it is, agrees with *some* fact outside his present self (as my thought, for instance, of my toothache may agree with the fact yonder called my neighbor's toothache), but also that his thought agrees with the fact with which it *meant* to agree. To *mean* to agree, however, with a specific fact beyond my present self, involves such a relation to that fact that if I could somehow come directly into the presence of the fact itself, could somehow absorb it into my present consciousness, I should become immediately aware of it as the fact that I all along had meant. Our previous examples have been intended to bring clearly before us this curious and in fact unique character of the relation called *meaning* an object of our thought. To return, then, to our supposed believer: he believes that he *knows* some fact beyond his present consciousness. This involves, as we have now seen, the assertion that he believes himself to stand in such an actual relation to the fact yonder that were it in, instead of out of his present consciousness, he would recognize it both as the object *meant* by his present thought, and also as in agreement therewith; and it is all this which, as he believes, an immediate observer of his own thought and of the object — that is, an observer who should include our believer's present self, and the fact yonder, and who should reflect on their relations — would find as the real relation. Observe, however, that only by *reflection* would this higher observer find out that real relation. Nothing but Reflective Self-consciousness could

discover it. To believe that you know anything beyond your present and momentary self, is, therefore, to believe that you do stand in such a relation to truth as only a larger and reflectively observant self, that included you and your object, could render intelligible. Or once more, so to believe is essentially to appeal confidently to a possible larger self for approval. But now to say, I know a truth, and yet to say, This larger self to whom I appeal is appealed to only as to a possible self, that needn't be real, — all this involves just the absurdity against which our whole idealistic analysis has been directed in case of all the sorts of fact and truth in the world. To believe, is to say, I stand in a *real* relation to truth, a relation which transcends wholly my present momentary self; and this real relation is of such a curious nature that only a larger inclusive self which consciously reflected upon my meaning and consciously possessed the object that I mean, could know or grasp the reality of the relation. If, however, this *relation* is a real one, it must, like the colors, the sounds, and all the other things of which we spoke before be real *for* somebody. Bare possibilities are nothing. Really possible things are already in some sense real. If, then, my relation to the truth, this complex relation of meaning an object and conforming to it, when the object, although at this moment meant by me, is not now present to my momentary thought, — if this relation is genuine, and yet is such as only a possible larger self could render intelligible, then my possible larger self must be real in order that my momentary self should in fact possess the truth in question. Or, in briefest form, The relation of conforming one's thought to an outer object meant by this thought is a relation which only a Reflective Larger Self could grasp or find real. If the relation is real, the larger self is real, too.

So much, then, for the case when one *believes* that one has grasped a truth beyond the moment. But now for the case when one is actually in *error* about some object of his momentary and finite thought. Error is the actual failure to agree, not with any fact taken at random, but with just the fact that one had meant to agree with. Under what circumstances,

then, is error possible? Only in case one's real thought, by virtue of its meaning, does transcend his own momentary and in so far ignorant self. As the true believer, meaning the truth that he believes, must be in real relation thereto, even so the blunderer, really meaning, as he does, the fact yonder, in order that he should be able even to blunder about it, must be, in so far, in the same real relation to truth as the true believer. His error lies in missing that conformity with the meant object at which he aimed. None the less, however, did he really mean and really aim; and, therefore, is he in error, because his real and larger self finds him to be so. True thinking and false thinking alike involve, then, the same fundamental conditions, in so far as both are carried on in moments; and in so far as, in both cases, the false moment and the true are such by virtue of being organic parts of a larger, critical, reflective, and so conscious self.

To sum up so far: Of no object do I speak either falsely or truly, unless I mean that object. Never do I mean an object, unless I stand in such relation thereto that were the object in this conscious moment, and immediately present to me, I should myself recognize it as completing and fulfilling my present and momentary meaning. The relation of meaning an object is thus one that only conscious Reflection can define, or observe, or constitute. No merely *foreign* observer, no external test, could decide upon what is meant at any moment. Therefore, when what is meant is outside of the moment which means, only a Self inclusive of the moment and its object could complete, and so confirm or refute, the opinion that the moment contains. Really to mean an object, then, whether in case of true opinion or in case of false opinion, involves the real possibility of such a reflective test of one's meaning from the point of view of a larger self. But to say, My relation to the object is such that a reflective larger self, and *only* such a reflective and inclusive self, could see that I meant the object, is to assert a fact, a relation, an existent truth in the world, that either is a truth for nobody, or is a truth for an actual reflective self, inclusive of the moment, and critical of its meaning. Our whole

idealistic analysis, however, from the beginning of this discussion, has been to the effect that facts must be facts for somebody, and can't be facts for nobody, and that *bare* possibilities are really impossible. Hence whoever believes, whether truly or falsely, about objects beyond the moment of his belief, is an organic part of a reflective and conscious larger self that has those objects immediately present to itself, and has them in organic relation with the erring or truthful momentary self that believes.

Belief, true and false, having been examined, the case of doubt follows at once. To doubt about objects beyond my momentary self is to admit the "possibility of error" as to such objects. Error would involve my inclusion in a larger self that has directly present to it the object meant by me as I doubt. Truth would involve the same inclusion. The inclusion itself, then, is, so far, no object of rational doubt. To doubt the inclusion would be merely to doubt whether I meant anything at all beyond the moment, and not to doubt as to my particular knowledge about the *nature* of some object beyond, when once the object had been supposed to be meant. Doubt presupposes then, whenever it is a definite doubt, the real possibility, and so, in the last analysis, the reality of the normal self-consciousness that possesses the object concerning which one doubts.

But if, passing to the extreme of skepticism, and stating one's most despairing and most uncompromising doubt, one so far confines himself to the prison of the inner life as to doubt whether one ever does mean any object beyond the moment at all, there comes the final consideration that in doubting one's power to transcend the moment, one has already transcended the moment, just as we found in following Hegel's analysis.[1] To say, It is impossible to mean any object beyond this moment of my thought, and the moment is for itself "the measure of all things," is at all events to give a meaning to the words *this moment*. And *this moment* means something only in opposition to *other* moments. Yes, even in saying *this moment*, I have already left this moment, and am meaning and speaking of a

[1] See, in *The Spirit of Modern Philosophy*, pp. 204-207.

past moment. Moreover, to deny that one can mean an object "beyond the moment" is already to give a meaning to the phrase *beyond the moment*, and then to deny that anything is meant to fall within the scope of this meaning. In every case, then, one must transcend by one's meaning the moment to which one is confined by one's finitude.

Flee where we will, then, the net of the larger Self ensnares us. We are lost and imprisoned in the thickets of its tangled labyrinth. The moments are not at all in themselves, for as moments they have no meaning; they exist only in relation to the beyond. The larger Self alone is, and they are by reason of it, organic parts of it. They perish, but it remains; they have truth or error only in its overshadowing presence.

And now, as to the unity of this Self. Can there be many such organic selves, mutually separate unities of moments and of the objects that these moments mean? Nay, were there *many* such, would not their manifoldness be a truth? Their relations, would not these be real? Their distinct places in the world-order, would not these things be objects of possible true or false thoughts? If so, must not there be once more the inclusive real Self for whom these truths were true, these separate selves interrelated, and their variety absorbed in the organism of its rational meaning?

There is, then, at last, but one Self, organically, reflectively, consciously inclusive of all the selves, and so of all truth. I have called this self, Logos, problem-solver, all-knower. Consider, then, last of all, his relation to problems. In the previous lecture we doubted many things; we questioned the whole seeming world of the outer order; we wondered as to space and time, as to nature and evolution, as to the beginning and the end of things. Now he who wonders is like him who doubts. Has his wonder any rationality about it? Does he *mean* anything by his doubt? Then the truth that he means, and about which he wonders, has its real constitution. As wonderer, he in the moment possesses not this solving truth; he appeals to the self who can solve. That self must possess the solution just as surely as the problem has a meaning. The real

nature of space and time, the real beginning of things, where matter was at any point of time in the past, what is to become of the world's energy: these are matters of truth, and truth is necessarily present to the Self as in one all-comprehending self-completed moment, beyond which is naught, within which is the world.

The world, then, is such stuff as ideas are made of. Thought possesses all things. But the world isn't unreal. It extends infinitely beyond our private consciousness, because it is the world of an universal mind. What facts it is to contain only experience can inform us. There is no magic that can anticipate the work of science. Absolutely the *only* thing sure from the first about this world, however, is that it is intelligent, rational, orderly, essentially comprehensible, so that all its problems are somewhere solved, all its darkest mysteries are known to the supreme Self. This Self infinitely and reflectively transcends our consciousness, and therefore, since it includes us, it is at the very least a person, and more definitely conscious than we are; for what it possesses is self-reflecting knowledge, and what is knowledge aware of itself, but consciousness? Beyond the seeming wreck and chaos of our finite problems, its eternal insight dwells, therefore, in absolute and supreme majesty. Yet it is not far from every one of us. There is no least or most transient thought that flits through a child's mind, or that troubles with the faintest line of care a maiden's face, and that still does not contain and embody something of this divine Logos.

WILLIAM JAMES
(1842–1910)

PRAGMATISM

LECTURE II. WHAT PRAGMATISM MEANS *

SOME years ago, being with a camping party in the mountains, I returned from a solitary ramble to find every one engaged in a ferocious metaphysical dispute. The *corpus* of the dispute was a squirrel — a live squirrel supposed to be clinging to one side of a tree-trunk; while over against the tree's opposite side a human being was imagined to stand. This human witness tries to get sight of the squirrel by moving rapidly round the tree, but no matter how fast he goes, the squirrel moves as fast in the opposite direction, and always keeps the tree between himself and the man, so that never a glimpse of him is caught. The resultant metaphysical problem now is this: *Does the man go round the squirrel or not?* He goes round the tree, sure enough, and the squirrel is on the tree; but does he go round the squirrel? In the unlimited leisure of the wilderness, discussion had been worn threadbare. Every one had taken sides, and was obstinate; and the numbers on both sides were even. Each side, when I appeared therefore appealed to me to make it a majority. Mindful of the scholastic adage that whenever you meet a contradiction you must make a distinction, I immediately sought and found one, as follows: "Which party is right," I said, "depends on what you *practically mean* by 'going round' the squirrel. If you mean passing from the north of him to the east, then to the south, then to the west, and then to the north of him again, obviously the man does go round him, for he occupies these successive positions. But if on the contrary you mean being first in front

* Reprinted from William James' *Pragmatism*. London, Longmans, Green and Co. 1907.

of him, then on the right of him, then behind him, then on his left, and finally in front again, it is quite as obvious that the man fails to go round him, for by the compensating movements the squirrel makes, he keeps his belly turned towards the man all the time, and his back turned away. Make the distinction, and there is no occasion for any farther dispute. You are both right and both wrong according as you conceive the verb 'to go round' in one practical fashion or the other."

Although one or two of the hotter disputants called my speech a shuffling evasion, saying they wanted no quibbling or scholastic hair-splitting, but meant just plain honest English 'round,' the majority seemed to think that the distinction had assuaged the dispute.

I tell this trivial anecdote because it is a peculiarly simple example of what I wish now to speak of as *the pragmatic method.* The pragmatic method is primarily a method of settling metaphysical disputes that otherwise might be interminable. Is the world one or many? — fated or free? — material or spiritual? — here are notions either of which may or may not hold good of the world; and disputes over such notions are unending. The pragmatic method in such cases is to try to interpret each notion by tracing its respective practical consequences. What difference would it practically make to any one if this notion rather than that notion were true? If no practical difference whatever can be traced, then the alternatives mean practically the same thing, and all dispute is idle. Whenever a dispute is serious, we ought to be able to show some practical difference that must follow from one side or the other's being right.

A glance at the history of the idea will show you still better what pragmatism means. The term is derived from the same Greek word πράγμα, meaning action, from which our words 'practice' and 'practical' come. It was first introduced into philosophy by Mr. Charles Peirce in 1878. In an article entitled 'How to Make Our Ideas Clear,' in the 'Popular Science Monthly' for January of that year [1] Mr. Peirce, after pointing out that our beliefs are really rules for action, said that, to de-

[1] Translated in the *Revue Philosophique* for January, 1879 (vol vii).

velop a thought's meaning, we need only determine what conduct it is fitted to produce: that conduct is for us its sole significance. And the tangible fact at the root of all our thought-distinctions, however subtle, is that there is no one of them so fine as to consist in anything but a possible difference of practice. To attain perfect clearness in our thoughts of an object, then, we need only consider what conceivable effects of a practical kind the object may involve — what sensations we are to expect from it, and what reactions we must prepare. Our conception of these effects, whether immediate or remote, is then for us the whole of our conception of the object, so far as that conception has positive significance at all.

This is the principle of Peirce, the principle of pragmatism. It lay entirely unnoticed by any one for twenty years, until I, in an address before Professor Howison's philosophical union at the University of California, brought it forward again and made a special application of it to religion. By that date (1898) the times seemed ripe for its reception. The word 'pragmatism' spread, and at present it fairly spots the pages of the philosophic journals. On all hands we find the 'pragmatic movement' spoken of, sometimes with respect, sometimes with contumely, seldom with clear understanding. It is evident that the term applies itself conveniently to a number of tendencies that hitherto have lacked a collective name, and that it has 'come to stay.'

To take in the importance of Peirce's principle, one must get accustomed to applying it to concrete cases. I found a few years ago that Ostwald, the illustrious Leipzig chemist, had been making perfectly distinct use of the principle of pragmatism in his lectures on the philosophy of science, though he had not called it by that name.

"All realities influence our practice," he wrote me, "and that influence is their meaning for us. I am accustomed to put questions to my classes in this way: In what respects would the world be different if this alternative or that were true? If I can find nothing that would become different, then the alternative has no sense."

That is, the rival views mean practically the same thing, and meaning, other than practical, there is for us none. Ostwald in a published lecture gives this example of what he means. Chemists have long wrangled over the inner constitution of certain bodies called 'tautomerous.' Their properties seemed equally consistent with the notion that an instable hydrogen atom oscillates inside of them, or that they are instable mixtures of two bodies. Controversy raged, but never was decided. "It would never have begun," says Ostwald, "if the combatants had asked themselves what particular experimental fact could have been made different by one or the other view being correct. For it would then have appeared that no difference of fact could possibly ensue; and the quarrel was as unreal as if, theorizing in primitive times about the raising of dough by yeast, one party should have invoked a 'brownie,' while another insisted on an 'elf' as the true cause of the phenomenon." [1]

It is astonishing to see how many philosophical disputes collapse into insignificance the moment you subject them to this simple test of tracing a concrete consequence. There can *be* no difference anywhere that doesn't *make* a difference elsewhere — no difference in abstract truth that doesn't express itself in a difference in concrete fact and in conduct consequent upon that fact, imposed on somebody, somehow, somewhere, and somewhen. The whole function of philosophy ought to be to find out what definite difference it will make to you and me, at definite instants of our life, if this world-formula or that world-formula be the true one.

There is absolutely nothing new in the pragmatic method. Socrates was an adept at it. Aristotle used it methodically. Locke, Berkeley, and Hume made momentous contributions to

[1] 'Theorie und Praxis,' *Zeitsch. des Oesterreichischen Ingenieur u. Architecten Vereines*, 1905, Nr. 4 u. 6. I find a still more radical pragmatism than Ostwald's in an address by Professor W. S. Franklin: "I think that the sickliest notion of physics, even if a student gets it, is that it is 'the science of masses, molecules, and the ether.' And I think that the healthiest notion, even if a student does not wholly get it, is that physics is the science of the ways of taking hold of bodies and pushing them!" (*Science*, January 2, 1903.)

truth by its means. Shadworth Hodgson keeps insisting that realities are only what they are 'known as.' But these forerunners of pragmatism used it in fragments: they were preluders only. Not until in our time has it generalized itself, become conscious of a universal mission, pretended to a conquering destiny. I believe in that destiny, and I hope I may end by inspiring you with my belief.

Pragmatism represents a perfectly familiar attitude in philosophy, the empiricist attitude, but it represents it, as it seems to me, both in a more radical and in a less objectionable form than it has ever yet assumed. A pragmatist turns his back resolutely and once for all upon a lot of inveterate habits dear to professional philosophers. He turns away from abstraction and insufficiency, from verbal solutions, from bad *a priori* reasons, from fixed principles, closed systems, and pretended absolutes and origins. He turns towards concreteness and adequacy, towards facts, towards action and towards power. That means the empiricist temper regnant and the rationalist temper sincerely given up. It means the open air and possibilities of nature, as against dogma, artificiality, and the pretence of finality in truth.

At the same time it does not stand for any special results. It is a method only. But the general triumph of that method would mean an enormous change in what I called in my last lecture the 'temperament' of philosophy. Teachers of the ultra-rationalistic type would be frozen out, much as the courtier type is frozen out in republics, as the ultra-montane type of priest is frozen out in protestant lands. Science and metaphysics would come much nearer together, would in fact work absolutely hand in hand.

Metaphysics has usually followed a very primitive kind of quest. You know how men have always hankered after unlawful magic, and you know what a great part in magic *words* have always played. If you have his name, or the formula of incantation that binds him, you can control the spirit, genie, afrite, or whatever the power may be. Solomon knew the names of all the spirits, and having their names, he held them

subject to his will. So the universe has always appeared to the natural mind as a kind of enigma, of which the key must be sought in the shape of some illuminating or power-bringing word or name. That word names the universe's *principle*, and to possess it is after a fashion to possess the universe itself. 'God,' 'Matter,' 'Reason,' 'the Absolute,' 'Energy,' are so many solving names. You can rest when you have them. You are at the end of your metaphysical quest.

But if you follow the pragmatic method, you cannot look on any such word as closing your quest. You must bring out of each word its practical cash-value, set it at work within the stream of your experience. It appears less as a solution, then, than as a program for more work, and more particularly as an indication of the ways in which existing realities may be *changed*.

Theories thus become instruments, not answers to enigmas, in which we can rest. We don't lie back upon them, we move forward, and, on occasion, make nature over again by their aid. Pragmatism unstiffens all our theories, limbers them up and sets each one at work. Being nothing essentially new, it harmonizes with many ancient philosophic tendencies. It agrees with nominalism for instance, in always appealing to particulars; with utilitarianism in emphasizing practical aspects; with positivism in its disdain for verbal solutions, useless questions and metaphysical abstractions.

All these, you see, are *anti-intellectualist* tendencies. Against rationalism as a pretension and a method pragmatism is fully armed and militant. But, at the outset, at least, it stands for no particular results. It has no dogmas, and no doctrine save its method. As the young Italian pragmatist Papini has well said, it lies in the midst of our theories, like a corridor in a hotel. Innumerable chambers open out of it. In one you may find a man writing an atheistic volume; in the next some one on his knees praying for faith and strength; in a third a chemist investigating a body's properties. In a fourth a system of idealistic metaphysics is being excogitated; in a fifth the impossibility of metaphysics is being shown. But they all own the

corridor, and all must pass through it if they want a practicable way of getting into or out of their respective rooms.

No particular results then, so far, but only an attitude of orientation, is what the pragmatic method means. *The attitude of looking away from first things, principles, 'categories,' supposed necessities; and of looking towards last things, fruits, consequences, facts.*

So much for the pragmatic method! You may say that I have been praising it rather than explaining it to you, but I shall presently explain it abundantly enough by showing how it works on some familiar problems. Meanwhile the word pragmatism has come to be used in a still wider sense, as meaning also a certain *theory of truth.* I mean to give a whole lecture to the statement of that theory, after first paving the way, so I can be very brief now. But brevity is hard to follow, so I ask for your redoubled attention for a quarter of an hour. If much remains obscure, I hope to make it clearer in the later lectures.

One of the most successfully cultivated branches of philosophy in our time is what is called inductive logic, the study of the conditions under which our sciences have evolved. Writers on this subject have begun to show a singular unanimity as to what the laws of nature and elements of fact mean, when formulated by mathematicians, physicists and chemists. When the first mathematical, logical, and natural uniformities, the first *laws,* were discovered, men were so carried away by the clearness, beauty and simplification that resulted, that they believed themselves to have deciphered authentically the eternal thoughts of the Almighty. His mind also thundered and reverberated in syllogisms. He also thought in conic sections, squares and roots and ratios, and geometrized like Euclid. He made Kepler's laws for the planets to follow; he made velocity increase proportionally to the time in falling bodies; he made the law of the sines for light to obey when refracted; he established the classes, orders, families and genera of plants and animals, and fixed the distances between them. He thought the archetypes of all things, and devised their variations; and

when we rediscover any one of these his wondrous institutions, we seize his mind in its very literal intention.

But as the sciences have developed farther, the notion has gained ground that most, perhaps all, of our laws are only approximations. The laws themselves, moreover, have grown so numerous that there is no counting them; and so many rival formulations are proposed in all the branches of science that investigators have become accustomed to the notion that no theory is absolutely a transcript of reality, but that any one of them may from some point of view be useful. Their great use is to summarize old facts and to lead to new ones. They are only a man-made language, a conceptual shorthand, as some one calls them, in which we write our reports of nature; and languages, as is well known, tolerate much choice of expression and many dialects.

Thus human arbitrariness has driven divine necessity from scientific logic. If I mention the names of Sigwart, Mach, Ostwald, Pearson, Milhaud, Poincarè, Duhem, Ruyssen, those of you who are students will easily identify the tendency I speak of, and will think of additional names.

Riding now on the front of this wave of scientific logic Messrs. Schiller and Dewey appear with their pragmatistic account of what truth everywhere signifies. Everywhere, these teachers say, 'truth' in our ideas and beliefs means the same thing that it means in science. It means, they say, nothing but this, *that ideas (which themselves are but parts of our experience) become true just in so far as they help us to get into satisfactory relation with other parts of our experience*, to summarize them and get about among them by conceptual short-cuts instead of following the interminable succession of particular phenomena. Any idea upon which we can ride, so to speak; any idea that will carry us prosperously from any one part of our experience to any other part, linking things satisfactorily, working securely, simplifying, saving labor; is true for just so much, true in so far forth, true *instrumentally*. This is the 'instrumental' view of truth taught so successfully at Chicago, the view that truth in our ideas means their power to 'work,' promulgated so brilliantly at Oxford.

Messrs. Dewey, Schiller and their allies, in reaching this general conception of all truth, have only followed the example of geologists, biologists and philologists. In the establishment of these other sciences, the successful stroke was always to take some simple process actually observable in operation — as denudation by weather, say, or variation from parental type, or change of dialect by incorporation of new words and pronunciations — and then to generalize it, making it apply to all times, and produce great results by summating its effects through the ages.

The observable process which Schiller and Dewey particularly singled out for generalization is the familiar one by which any individual settles into *new opinions*. The process here is always the same. The individual has a stock of old opinions already, but he meets a new experience that puts them to a strain. Somebody contradicts them; or in a reflective moment he discovers that they contradict each other; or he hears of facts with which they are incompatible; or desires arise in him which they cease to satisfy. The result is an inward trouble to which his mind till then had been a stranger, and from which he seeks to escape by modifying his previous mass of opinions. He saves as much of it as he can, for in this matter of belief we are all extreme conservatives. So he tries to change first this opinion, and then that (for they resist change very variously), until at last some new idea comes up which he can graft upon the ancient stock with a minimum of disturbance of the latter, some idea that mediates between the stock and the new experience and runs them into one another most felicitously and expediently.

This new idea is then adopted as the true one. It preserves the older stock of truths with a minimum of modification, stretching them just enough to make them admit the novelty, but conceiving that in ways as familiar as the case leaves possible. An *outrée* explanation, violating all our preconceptions, would never pass for a true account of a novelty. We should scratch round industriously till we found something less excentric. The most violent revolutions in an individual's be-

liefs leave most of his old order standing. Time and space, cause and effect, nature and history, and one's own biography remain untouched. New truth is always a go-between, a smoother-over of transitions. It marries old opinion to new fact so as ever to show a minimum of jolt, a maximum of continuity. We hold a theory true just in proportion to its success in solving this 'problem of maxima and minima.' But success in solving this problem is eminently a matter of approximation. We say this theory solves it on the whole more satisfactorily than that theory; but that means more satisfactorily to ourselves, and individuals will emphasize their points of satisfaction differently. To a certain degree, therefore, everything here is plastic.

The point I now urge you to observe particularly is the part played by the older truths. Failure to take account of it is the source of much of the unjust criticism levelled against pragmatism. Their influence is absolutely controlling. Loyalty to them is the first principle — in most cases it is the only principle; for by far the most usual way of handling phenomena so novel that they would make for a serious rearrangement of our preconception is to ignore them altogether, or to abuse those who bear witness for them.

You doubtless wish examples of this process of truth's growth, and the only trouble is their superabundance. The simplest case of new truth is of course the mere numerical addition of new kinds of facts, or of new single facts of old kinds, to our experience — an addition that involves no alteration in the old beliefs. Day follows day, and its contents are simply added. The new contents themselves are not true, they simply *come* and *are*. Truth is *what we say about* them, and when we say that they have come, truth is satisfied by the plain additive formula.

But often the day's contents oblige a rearrangement. If I should now utter piercing shrieks and act like a maniac on this platform, it would make many of you revise your ideas as to the probable worth of my philosophy. 'Radium' came the other day as part of the day's content, and seemed for a moment to

contradict our ideas of the whole order of nature, that order having come to be identified with what is called the conservation of energy. The mere sight of radium paying heat away indefinitely out of its own pocket seemed to violate that conservation. What to think? If the radiations from it were nothing but an escape of unsuspected 'potential' energy, pre-existent inside of the atoms, the principle of conservation would be saved. The discovery of 'helium' as the radiation's outcome, opened a way to this belief. So Ramsay's view is generally held to be true, because, although it extends our old ideas of energy, it causes a minimum of alteration in their nature.

I need not multiply instances. A new opinion counts as 'true' just in proportion as it gratifies the individual's desire to assimilate the novel in his experience to his beliefs in stock. It must both lean on old truth and grasp new fact; and its success (as I said a moment ago) in doing this, is a matter for the individual's appreciation. When old truth grows, then, by new truth's addition, it is for subjective reasons. We are in the process and obey the reasons. That new idea is truest which performs most felicitously its function of satisfying our double urgency. It makes itself true, gets itself classed as true, by the way it works; grafting itself then upon the ancient body of truth, which thus grows much as a tree grows by the activity of a new layer of cambium.

Now Dewey and Schiller proceed to generalize this observation and to apply it to the most ancient parts of truth. They also once were plastic. They also were called true for human reasons. They also mediated between still earlier truths and what in those days were novel observations. Purely objective truth, truth in whose establishment the function of giving human satisfaction in marrying previous parts of experience with newer parts played no rôle whatever, is nowhere to be found. The reasons why we call things true is the reason why they *are* true, for 'to be true' *means* only to perform this marriage-function.

The trail of the human serpent is thus over everything. Truth independent; truth that we *find* merely; truth no longer

malleable to human need; truth incorrigible, in a word; such truth exists indeed superabundantly — or is supposed to exist by rationalistically minded thinkers; but then it means only the dead heart of the living tree, and its being there means only that truth also has its paleontology, and its 'prescription,' and may grow stiff with years of veteran service and petrified in men's regard by sheer antiquity. But how plastic even the oldest truths nevertheless really are has been vividly shown in our day by the transformation of logical and mathematical ideas, a transformation which seems even to be invading physics. The ancient formulas are reinterpreted as special expressions of much wider principles, principles that our ancestors never got a glimpse of in their present shape and formulation.

Mr. Schiller still gives to all this view of truth the name of 'Humanism,' but, for this doctrine too, the name of pragmatism seems fairly to be in the ascendant, so I will treat it under the name of pragmatism in these lectures.

Such then would be the scope of pragmatism — first, a method; and second, a genetic theory of what is meant by truth. And these two things must be our future topics.

What I have said of the theory of truth will, I am sure, have appeared obscure and unsatisfactory to most of you by reason of its brevity. I shall make amends for that hereafter. In a lecture on 'common sense' I shall try to show what I mean by truths grown petrified by antiquity. In another lecture I shall expatiate on the idea that our thoughts become true in proportion as they successfully exert their go-between function. In a third I shall show how hard it is to discriminate subjective from objective factors in Truth's development. You may not follow me wholly in these lectures; and if you do, you may not wholly agree with me. But you will, I know, regard me at least as serious, and treat my effort with respectful consideration.

You will probably be surprised to learn, then, that Messrs. Schiller's and Dewey's theories have suffered a hailstorm of contempt and ridicule. All rationalism has risen against them. In influential quarters Mr. Schiller, in particular, has been

treated like an impudent schoolboy who deserves a spanking. I should not mention this, but for the fact that it throws so much sidelight upon that rationalistic temper to which I have opposed the temper of pragmatism. Pragmatism is uncomfortable away from facts. Rationalism is comfortable only in the presence of abstractions. This pragmatist talk about truths in the plural, about their utility and satisfactoriness, about the success with which they 'work,' etc., suggests to the typical intellectualist mind a sort of coarse lame second-rate makeshift article of truth. Such truths are not real truth. Such tests are merely subjective. As against this, objective truth must be something non-utilitarian, haughty, refined, remote, august, exalted. It must be an absolute correspondence of our thoughts with an equally absolute reality. It must be what we *ought* to think unconditionally. The conditioned ways in which we *do* think are so much irrelevance and matter for psychology. Down with psychology, up with logic, in all this question!

See the exquisite contrast of the types of mind! The pragmatist clings to facts and concreteness, observes truth at its work in particular cases, and generalizes. Truth, for him, becomes a class-name for all sorts of definite working-values in experience. For the rationalist it remains a pure abstraction, to the bare name of which we must defer. When the pragmatist undertakes to show in detail just *why* we must defer, the rationalist is unable to recognize the concretes from which his own abstraction is taken. He accuses us of *denying* truth; whereas we have only sought to trace exactly why people follow it and always ought to follow it. Your typical ultra-abstractionist fairly shudders at concreteness: other things equal, he positively prefers the pale and spectral. If the two universes were offered, he would always choose the skinny outline rather than the rich thicket of reality. It is so much purer, clearer, nobler.

I hope that as these lectures go on, the concreteness and closeness to facts of the pragmatism which they advocate may be what approves itself to you as its most satisfactory

peculiarity. It only follows here the example of the sister-sciences, interpreting the unobserved by the observed. It brings old and new harmoniously together. It converts the absolutely empty notion of a static relation of 'correspondence' (what that may mean we must ask later) between our minds and reality, into that of a rich and active commerce (that any one may follow in detail and understand) between particular thoughts of ours, and the great universe of other experiences in which they play their parts and have their uses.

But enough of this at present? The justification of what I say must be postponed. I wish now to add a word in further explanation of the claim I made at our last meeting, that pragmatism may be a happy harmonizer of empiricist ways of thinking with the more religious demands of human beings.

Men who are strongly of the fact-loving temperament, you may remember me to have said, are liable to be kept at a distance by the small sympathy with facts which that philosophy from the present-day fashion of idealism offers them. It is far too intellectualistic. Old fashioned theism was bad enough, with its notion of God as an exalted monarch, made up of a lot of unintelligible or preposterous 'attributes'; but, so long as it held strongly by the argument from design, it kept some touch with concrete realities. Since, however, darwinism has once for all displaced design from the minds of the 'scientific,' theism has lost that foothold; and some kind of an immanent or pantheistic deity working *in* things rather than above them is, if any, the kind recommended to our contemporary imagination. Aspirants to a philosophic religion turn, as a rule, more hopefully nowadays towards idealistic pantheism than towards the older dualistic theism, in spite of the fact that the latter still counts able defenders.

But, as I said in my first lecture, the brand of pantheism offered is hard for them to assimilate if they are lovers of facts, or empirically minded. It is the absolutistic brand, spurning the dust and reared upon pure logic. It keeps no connexion whatever with concreteness. Affirming the Absolute Mind

which is its substitute for God, to be the rational presupposition of all particulars of fact, whatever they may be, it remains supremely indifferent to what the particular facts in our world actually are. Be they what they may, the Absolute will father them. Like the sick lion in Esop's fable, all footprints lead into his den, but *nulla vestigia retrorsum.* You cannot redescend into the world of particulars by the Absolute's aid, or deduce any necessary consequences of detail important for your life from your idea of his nature. He gives you indeed the assurance that all is well with *Him*, and for his eternal way of thinking; but thereupon he leaves you to be finitely saved by your own temporal devices.

Far be it from me to deny the majesty of this conception, or its capacity to yield religious comfort to a most respectable class of minds. But from the human point of view, no one can pretend that it doesn't suffer from the faults of remoteness and abstractness. It is eminently a product of what I have ventured to call the rationalistic temper. It disdains empiricism's needs. It substitutes a pallid outline for the real world's richness. It is dapper, it is noble in the bad sense, in the sense in which to be noble is to be inapt for humble service. In this real world of sweat and dirt, it seems to me that when a view of things is 'noble,' that ought to count as a presumption against its truth, and as a philosophic disqualification. The prince of darkness may be a gentleman, as we are told he is, but whatever the God of earth and heaven is, he can surely be no gentleman. His menial services are needed in the dust of our human trials, even more than his dignity is needed in the empyrean.

Now pragmatism, devoted though she be to facts, has no such materialistic bias as ordinary empiricism labors under. Moreover, she has no objection whatever to the realizing of abstractions, so long as you get about among particulars with their aid and they actually carry you somewhere. Interested in no conclusions but those which our minds and our experiences work out together, she has no *a priori* prejudices against theology. *If theological ideas prove to have a value for concrete life, they will be true, for pragmatism, in the sense of being good*

for so much. For how much more they are true, will depend entirely on their relations to the other truths that also have to be acknowledged.

What I said just now about the Absolute, of transcendental idealism, is a case in point. First, I called it majestic and said it yielded religious comfort to a class of minds, and then I accused it of remoteness and sterility. But so far as it affords such comfort, it surely is not sterile; it has that amount of value; it performs a concrete function. As a good pragmatist, I myself ought to call the Absolute true 'in so far forth,' then; and I unhesitatingly now do so.

But what does *true in so far forth* mean in this case? To answer, we need only apply the pragmatic method. What do believers in the Absolute mean by saying that their belief affords them comfort? They mean that since, in the Absolute finite evil is 'overruled' already, we may, therefore, whenever we wish, treat the temporal as if it were potentially the eternal, be sure that we can trust its outcome, and, without sin, dismiss our fear and drop the worry of our finite responsibility. In short, they mean that we have a right ever and anon to take a moral holiday, to let the world wag in its own way, feeling that its issues are in better hands than ours and are none of our business.

The universe is a system of which the individual members may relax their anxieties occasionally, in which the don't-care mood is also right for men, and moral holidays in order, — that, if I mistake not, is part, at least, of what the Absolute is 'known-as,' that is the great difference in our particular experiences which his being true makes, for us, that is his cash-value when he is pragmatically interpreted. Farther than that the ordinary lay-reader in philosophy who thinks favorably of absolute idealism does not venture to sharpen his conceptions. He can use the Absolute for so much, and so much is very precious. He is pained at hearing you speak incredulously of the Absolute, therefore, and disregards your criticisms because they deal with aspects of the conception that he fails to follow.

If the Absolute means this, and means no more than this,

who can possibly deny the truth of it? To deny it would be to insist that men should never relax, and that holidays are never in order.

I am well aware how odd it must seem to some of you to hear me say that an idea is 'true' so long as to believe it is profitable to our lives. That it is *good*, for as much as it profits, you will gladly admit. If what we do by its aid is good, you will allow the idea itself to be good in so far forth, for we are the better for possessing it. But is it not a strange misuse of the word 'truth,' you will say, to call ideas also 'true' for this reason?

To answer this difficulty fully is impossible at this stage of my account. You touch here upon the very central point of Messrs. Schiller's, Dewey's and my own doctrine of truth, which I cannot discuss with detail until my sixth lecture. Let me now say only this, that truth is *one species of good*, and not, as is usually supposed, a category distinct from good, and co-ordinate with it. *The true is the name of whatever proves itself to be good in the way of belief, and good, too, for definite, assignable reasons.* Surely you must admit this, that if there were *no* good for life in true ideas, or if the knowledge of them were positively disadvantageous and false ideas the only useful ones, then the current notion that truth is divine and precious, and its pursuit a duty, could never have grown up or become a dogma. In a world like that, our duty would be to *shun* truth, rather. But in this world, just as certain foods are not only agreeable to our taste, but good for our teeth, our stomach, and our tissues; so certain ideas are not only agreeable to think about, or agreeable as supporting other ideas that we are fond of, but they are also helpful in life's practical struggles. If there be any life that it is really better we should lead, and if there be any idea which, if believed in, would help us to lead that life, then it would be really *better for us* to believe in that idea, *unless, indeed, belief in it incidentally clashed with other greater vital benefits.*

'What would be better for us to believe'! This sounds very like a definition of truth. It comes very near to saying 'what we *ought* to believe': and in *that* definition none of you would

find any oddity. Ought we ever not to believe what it is *better for us* to believe? And can we then keep the notion of what is better for us, and what is true for us, permanently apart?

Pragmatism says no, and I fully agree with her. Probably you also agree, so far as the abstract statement goes, but with a suspicion that if we practically did believe everything that made for good in our own personal lives, we should be found indulging all kinds of fancies about this world's affairs, and all kinds of sentimental superstitions about a world hereafter. Your suspicion here is undoubtedly well founded, and it is evident that something happens when you pass from the abstract to the concrete that complicates the situation.

I said just now that what is better for us to believe is true *unless the belief incidentally clashes with some other vital benefit.* Now in real life what vital benefits is any particular belief of ours most liable to clash with? What indeed except the vital benefits yielded by *other beliefs* when these prove incompatible with the first ones? In other words, the greatest enemy of any one of our truths may be the rest of our truths. Truths have once for all this desperate instinct of self-preservation and of desire to extinguish whatever contradicts them. My belief in the Absolute, based on the good it does me, must run the gauntlet of all my other beliefs. Grant that it may be true in giving me a moral holiday. Nevertheless, as I conceive it, — and let me speak now confidentially, as it were, and merely in my own private person, — it clashes with other truths of mine whose benefits I hate to give up on its account. It happens to be associated with a kind of logic of which I am the enemy, I find that it entangles me in metaphysical paradoxes that are inacceptable, etc., etc. But as I have enough trouble in life already without adding the trouble of carrying these intellectual inconsistencies, I personally just give up the Absolute. I just *take* my moral holidays; or else as a professional philosopher, I try to justify them by some other principle.

If I could restrict my notion of the Absolute to its bare holiday-giving value, it wouldn't clash with my other truths. But we can not easily thus restrict our hypotheses. They

carry supernumerary features, and these it is that clash so. My disbelief in the Absolute means then disbelief in those other supernumerary features, for I fully believe in the legitimacy of taking moral holidays.

You see by this what I meant when I called pragmatism a mediator and reconciler and said, borrowing the word from Papini, that she 'unstiffens' our theories. She has in fact no prejudices whatever, no obstructive dogmas, no rigid canons of what shall count as proof. She is completely genial. She will entertain any hypothesis, she will consider any evidence. It follows that in the religious field she is at a great advantage both over positivistic empiricism, with its anti-theological bias, and over religious rationalism, with its exclusive interest in the remote, the noble, the simple, and the abstract in the way of conception.

In short, she widens the field of search for God. Rationalism sticks to logic and the empyrean. Empiricism sticks to the external senses. Pragmatism is willing to take anything, to follow either logic or the senses and to count the humblest and most personal experiences. She will count mystical experiences if they have practical consequences. She will take a God who lives in the very dirt of private fact — if that should seem a likely place to find him.

Her only test of probable truth is what works best in the way of leading us, what fits every part of life best and combines with the collectivity of experience's demands, nothing being omitted. If theological ideas should do this, if the notion of God, in particular, should prove to do it, how could pragmatism possibly deny God's existence? She could see no meaning in treating as 'not true' a notion that was pragmatically so successful. What other kind of truth could there be, for her, than all this agreement with concrete reality?

In my last lecture I shall return again to the relations of pragmatism with religion. But you see already how democratic she is. Her manners are as various and flexible, her resources as rich and endless, and her conclusions as friendly as those of mother nature.

HENRI BERGSON

(1859–)

CREATIVE EVOLUTION

Translated from the French by*

ARTHUR MITCHELL

CHAPTER I. THE VITAL IMPETUS

IN thus submitting the various present forms of evolutionism to a common test, in showing that they all strike against the same insurmountable difficulty, we have in no wise the intention of rejecting them altogether. On the contrary, each of them, being supported by a considerable number of facts, must be true in its way. Each of them must correspond to a certain aspect of the process of evolution. Perhaps even it is necessary that a theory should restrict itself exclusively to a particular point of view, in order to remain scientific, i.e., to give a precise direction to researches into detail. But the reality of which each of these theories takes a partial view must transcend them all. And this reality is the special object of philosophy, which is not constrained to scientific precision because it contemplates no practical application. Let us therefore indicate in a word or two the positive contribution that each of the three present forms of evolutionism seems to us to make toward the solution of the problem, what each of them leaves out, and on what point this threefold effort should, in our opinion, converge in order to obtain a more comprehensive, although thereby of necessity a less definite, idea of the evolutionary process.

The neo-Darwinians are probably right, we believe, when they teach that the essential causes of variation are the differ-

* From *L'Évolution Créatrice*, Paris, 1907; 6 éd, 1910. Reprinted here from Henri Bergson's *Creative Evolution*, translated by Arthur Mitchell, New York, Henry Holt and Company, 1911.

ences inherent in the term borne by the individual, and not the experiences or behavior of the individual in the course of his career. Where we fail to follow these biologists, is in regarding the differences inherent in the germ as purely accidental and individual. We cannot help believing that these differences are the development of an impulsion which passes from germ to germ across the individuals, that they are therefore not pure accidents, and that they might well appear at the same time, in the same form, in all the representatives of the same species, or at least in a certain number of them. Already, in fact, the theory of *mutations* is modifying Darwinism profoundly on this point. It asserts that at a given moment, after a long period, the entire species is beset with a tendency to change. The *tendency to change*, therefore, is not accidental. True, the change itself would be accidental, since the mutation works, according to De Vries, in different directions in the different representatives of the species. But, first we must see if the theory is confirmed by many other vegetable species (De Vries has verified it only by the *Œnothera Lamarckiana*),[1] and then there is the possibility, as we shall explain further on, that the part played by chance is much greater in the variation of plants than in that of animals, because, in the vegetable world, function does not depend so strictly on form. Be that as it may, the neo-Darwinians are inclined to admit that the periods of mutation are determinate. The direction of the mutation may therefore be so as well, at least in animals, and to the extent we shall have to indicate.

We thus arrive at a hypothesis like Eimer's, according to which the variations of different characters continue from generation to generation in definite directions. This hypothesis seems plausible to us, within the limits in which Eimer himself retains it. Of course, the evolution of the organic world cannot be predetermined as a whole. We claim, on the contrary, that the spontaneity of life is manifested by a continual creation of

[1] Some analogous facts, however, have been noted, all in the vegetable world. See Blaringhem, "La Notion d'espèce et la théorie de la mutation" (*Année psychologique*, vol. xii., 1906, pp. 95 ff.), and De Vries, *Species and Varieties*, p. 655.

new forms succeeding others. But this indetermination cannot be complete; it must leave a certain part to determination. An organ like the eye, for example, must have been formed by just a continual changing in a definite direction. Indeed, we do not see how otherwise to explain the likeness of structure of the eye in species that have not the same history. Where we differ from Eimer is in his claim that combinations of physical and chemical causes are enough to secure the result. We have tried to prove, on the contrary, by the example of the eye, that if there is "orthogenesis" here, a psychological cause intervenes.

Certain neo-Lamarckians do indeed resort to a cause of a psychological nature. There, to our thinking, is one of the most solid positions of neo-Lamarckism. But if this cause is nothing but the conscious effort of the individual, it cannot operate in more than a restricted number of cases — at most in the animal world, and not at all in the vegetable kingdom. Even in animals, it will act only on points which are under the direct or indirect control of the will. And even where it does act, it is not clear how it could compass a change so profound as an increase of complexity: at most this would be conceivable if the acquired characters were regularly transmitted so as to be added together; but this transmission seems to be the exception rather than the rule. A hereditary change in a definite direction, which continues to accumulate and add to itself so as to build up a more and more complex machine, must certainly be related to some sort of effort, but to an effort of far greater depth than the individual effort, far more independent of circumstances, an effort common to most representatives of the same species, inherent in the germs they bear rather than in their substance alone, an effort thereby assured of being passed on to their descendants.

So we come back, by a somewhat roundabout way, to the idea we started from, that of an *original impetus* of life, passing from one generation of germs to the following generation of germs through the developed organisms which bridge the interval between the generations. This impetus, sustained right

along the lines of evolution among which it gets divided, is the fundamental cause of variations, at least of those that are regularly passed on, that accumulate and create new species. In general, when species have begun to diverge from a common stock, they accentuate their divergence as they progress in their evolution. Yet, in certain definite points, they may evolve identically; in fact, they must do so if the hypothesis of a common impetus be accepted. This is just what we shall have to show now in a more precise way, by the same example we have chosen, the formation of the eye in molluscs and vertebrates. The idea of an "original impetus," moreover, will thus be made clearer.

Two points are equally striking in an organ like the eye: the complexity of its structure and the simplicity of its function. The eye is composed of distinct parts, such as the sclerotic, the cornea, the retina, the crystalline lens, etc. In each of these parts the detail is infinite. The retina alone comprises three layers of nervous elements — each of which has its individuality and is undoubtedly a very complicated organism: so complicated, indeed, is the retinal membrane in its intimate structure, that no simple description can give an adequate idea of it. The mechanism of the eye is, in short, composed of an infinity of mechanisms, all of extreme complexity. Yet vision is one simple fact. As soon as the eye opens, the visual act is effected. Just because the act is simple, the slightest negligence on the part of nature in the building of the infinitely complex machine would have made vision impossible. This contrast between the complexity of the organ and the unity of the function is what gives us pause.

A mechanistic theory is one which means to show us the gradual building-up of the machine under the influence of external circumstances intervening either directly by action on the tissues or indirectly by the selection of better-adapted ones. But, whatever form this theory may take, supposing it avails at all to explain the detail of the parts, it throws no light on their correlation.

Then comes the doctrine of finality, which says that the

parts have been brought together on a preconceived plan with a view to a certain end. In this it likens the labor of nature to that of the workman, who also proceeds by the assemblage of parts with a view to the realization of an idea or the imitation of a model. Mechanism, here, reproaches finalism with its anthropomorphic character, and rightly. But it fails to see that itself proceeds according to this method — somewhat mutilated! True, it has got rid of the end pursued or the ideal model. But it also holds that nature has worked like a human being by bringing parts together, while a mere glance at the development of an embryo shows that life goes to work in a very different way. *Life does not proceed by the association and addition of elements, but by dissociation and division.*

We must get beyond both points of view, both mechanism and finalism being, at bottom, only standpoints to which the human mind has been led by considering the work of man. But in what direction can we go beyond them? We have said that in analyzing the structure of an organ, we can go on decomposing for ever, although the function of the whole is a simple thing. This contrast between the infinite complexity of the organ and the extreme simplicity of the function is what should open our eyes.

In general, when the same object appears in one aspect as simple and in another as infinitely complex, the two aspects have by no means the same importance, or rather the same degree of reality. In such cases, the simplicity belongs to the object itself, and the infinite complexity to the views we take in turning around it, to the symbols by which our senses or intellect represent it to us, or, more generally, to elements *of a different order*, with which we try to imitate it artificially, but with which it remains incommensurable, being of a different nature. An artist of genius has painted a figure on his canvas. We can imitate his picture with many-colored squares of mosaic. And we shall reproduce the curves and shades of the model so much the better as our squares are smaller, more numerous and more varied in tone. But an infinity of elements infinitely small, presenting an infinity of shades, would be

necessary to obtain the exact equivalent of the figure that the artist has conceived as a simple thing, which he has wished to transport as a whole to the canvas, and which is the more complete the more it strikes us as the projection of an indivisible intuition. Now, suppose our eyes so made that they cannot help seeing in the work of the master a mosaic effect. Or suppose our intellect so made that it cannot explain the appearance of the figure on the canvas except as a work of mosaic. We should then be able to speak simply of a collection of little squares, and we should be under the mechanistic hypothesis. We might add that, beside the materiality of the collection, there must be a plan on which the artist worked; and then we should be expressing ourselves as finalists. But in neither case should we have got at the real process, for there are no squares brought together. It is the picture, i.e., the simple act, projected on the canvas, which, by the mere fact of entering into our perception, is *de*composed before our eyes into thousands and thousands of little squares which present, as *re*composed, a wonderful arrangement. So the eye, with its marvelous complexity of structure, may be only the simple act of vision, divided *for us* into a mosaic of cells, whose order seems marvelous to us because we have conceived the whole as an assemblage.

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CHAPTER II. THE DIVERGENT DIRECTIONS OF THE EVOLUTION OF LIFE

THE evolution movement would be a simple one, and we should soon have been able to determine its direction, if life had described a single course, like that of a solid ball shot from a cannon. But it proceeds rather like a shell, which suddenly bursts into fragments, which fragments, being themselves shells, burst in their turn into fragments destined to burst again, and so on for a time incommensurably long. We perceive only what is nearest to us, namely, the scattered movements of the

pulverized explosions. From them we have to go back, stage by stage, to the original movement.

When a shell bursts, the particular way it breaks is explained both by the explosive force of the powder it contains and by the resistance of the metal. So of the way life breaks into individuals and species. It depends, we think, on two series of causes: the resistance life meets from inert matter, and the explosive force — due to an unstable balance of tendencies — which life bears within itself.

The resistance of inert matter was the obstacle that had first to be overcome. Life seems to have succeeded in this by dint of humility, by making itself very small and very insinuating, bending to physical and chemical forces, consenting even to go a part of the way with them, like the switch that adopts for a while the direction of the rail it is endeavoring to leave. Of phenomena in the simplest forms of life, it is hard to say whether they are still physical and chemical or whether they are already vital. Life had to enter thus into the habits of inert matter, in order to draw it little by little, magnetized, as it were, to another track. The animate forms that first appeared were therefore of extreme simplicity. They were probably tiny masses of scarcely differentiated protoplasm, outwardly resembling the amœba observable today, but possessed of the tremendous internal push that was to raise them even to the highest forms of life. That in virtue of this push the first organisms sought to grow as much as possible, seems likely. But organized matter has a limit of expansion that is very quickly reached; beyond a certain point it divides instead of growing. Ages of effort and prodigies of subtlety were probably necessary for life to get past this new obstacle. It succeeded in inducing an increasing number of elements, ready to divide, to remain united. By the division of labor it knotted between them an indissoluble bond. The complex and quasi-discontinuous organism is thus made to function as would a continuous living mass which had simply grown bigger.

But the real and profound causes of division were those which life bore within its bosom. For life is tendency, and the

essence of a tendency is to develop in the form of a sheaf, creating, by its very growth, divergent directions among which its impetus is divided. This we observe in ourselves, in the evolution of that special tendency which we call our character. Each of us, glancing back over his history, will find that his child-personality, though indivisible, united in itself divers persons, which could remain blended just because they were in their nascent state: this indecision, so charged with promise, is one of the greatest charms of childhood. But these interwoven personalities become incompatible in course of growth, and, as each of us can live but one life, a choice must perforce be made. We choose in reality without ceasing; without ceasing, also, we abandon many things. The route we pursue in time is strewn with the remains of all that we began to be, of all that we might have become. But nature, which has at command an incalculable number of lives, is in no wise bound to make such sacrifices. She preserves the different tendencies that have bifurcated with their growth. She creates with them diverging series of species that will evolve separately.

These series may, moreover, be of unequal importance. The author who begins a novel puts into his hero many things which he is obliged to discard as he goes on. Perhaps he will take them up later in other books, and make new characters with them, who will seem like extracts from, or rather like complements of, the first; but they will almost always appear somewhat poor and limited in comparison with the original character. So with regard to the evolution of life. The bifurcations on the way have been numerous, but there have been many blind alleys beside the two or three highways; and of these highways themselves, only one, that which leads through the vertebrates up to man, has been wide enough to allow free passage to the full breath of life. We get this impression when we compare the societies of bees and ants, for instance, with human societies. The former are admirably ordered and united, but stereotyped; the latter are open to every sort of progress, but divided, and incessantly at strife with themselves. The ideal would be a society always in progress and always in equilib-

rium, but this ideal is perhaps unrealizable: the two characteristics that would fain complete each other, which do complete each other in their embryonic state, can no longer abide together when they grow stronger. If one could speak, otherwise than metaphorically, of an impulse towards social life, it might be said that the brunt of the impulse was borne along the line of evolution ending at man, and that the rest of it was collected on the road leading to the hymenoptera: the societies of ants and bees would thus present the aspect complementary to ours. But this would be only a manner of expression. There has been no particular impulse towards social life; there is simply the general movement of life, which on divergent lines is creating forms ever new. If societies should appear on two of these lines, they ought to show divergence of paths at the same time as community of impetus. They will thus develop two classes of characteristics which we shall find vaguely complementary of each other.

So our study of the evolution movement will have to unravel a certain number of divergent directions, and to appreciate the importance of what has happened along each of them — in a word, to determine the nature of the dissociated tendencies and estimate their relative proportion. Combining these tendencies, then, we shall get an approximation, or rather an imitation, of the indivisible motor principle whence their impetus proceeds. Evolution will thus prove to be something entirely different from a series of adaptations to circumstances, as mechanism claims; entirely different also from the realization of a plan of the whole, as maintained by the doctrine of finality.

That adaptation to environment is the necessary condition of evolution we do not question for a moment. It is quite evident that a species would disappear, should it fail to bend to the conditions of existence which are imposed on it. But it is one thing to recognize, that outer circumstances are forces evolution must reckon with, another to claim that they are the directing causes of evolution. This latter theory is that of mechanism. It excludes absolutely the hypothesis of an original

impetus, I mean an internal push that has carried life, by more and more complex forms, to higher and higher destinies. Yet this impetus is evident, and a mere glance at fossil species shows us that life need not have evolved at all, or might have evolved only in very restricted limits, if it had chosen the alternative, much more convenient to itself, of becoming anchylosed in its primitive forms. Certain Foraminifera have not varied since the Silurian epoch. Unmoved witnesses of the innumerable revolutions that have upheaved our planet, the Lingulæ are to-day what they were at the remotest times of the paleozoic era. The truth is that adaptation explains the sinuosities of the movement of evolution, but not its general directions, still less the movement itself.[1] The road that leads to the town is obliged to follow the ups and downs of the hills; it *adapts itself* to the accidents of the ground; but the accidents of the ground are not the cause of the road, nor have they given it its direction. At every moment they furnish it with what is indispensable, namely, the soil on which it lies; but if we consider the whole of the road, instead of each of its parts, the accidents of the ground appear only as impediments or causes of delay, for the road aims simply at the town and would fain be a straight line. Just so as regards the evolution of life and the circumstances through which it passes — with this difference, that evolution does not mark out a solitary route, that it takes directions without aiming at ends, and that it remains inventive even in its adaptations.

But, if the evolution of life is something other than a series of adaptations to accidental circumstances, so also it is not the realization of a plan. A plan is given in advance. It is represented, or at least representable, before its realization. The complete execution of it may be put off to a distant future, or even indefinitely; but the idea is none the less formulable at the present time, in terms actually given. If, on the contrary, evolution is a creation increasingly renewed, it creates, as it

[1] This view of adaptation has been noted by M. E. Marin in a remarkable article on the origin of species, "L'origine des espèces" (*Revue scientifique*, Nov. 1901, p. 580).

goes on, not only the forms of life, but the ideas that will enable the intellect to understand it, the terms which will serve to express it. That is to say that its future overflows its present, and cannot be sketched out therein in an idea.

There is the first error of finalism. It involves another, yet more serious.

If life realizes a plan, it ought to manifest a greater harmony the further it advances, just as the house shows better and better the idea of the architect as stone is set upon stone. If, on the contrary, the unity of life is to be found solely in the impetus that pushes it along the road of time, the harmony is not in front, but behind. The unity is derived from a *vis a tergo:* it is given at the start as an impulsion, not placed at the end as an attraction. In communicating itself, the impetus splits up more and more. Life, in proportion to its progress, is scattered in manifestations which undoubtedly owe to their common origin the fact that they are complementary to each other in certain aspects, but which are none the less mutually incompatible and antagonistic. So the discord between species will go on increasing. Indeed, we have as yet only indicated the essential cause of it. We have supposed, for the sake of simplicity, that each species received the impulsion in order to pass it on to others, and that, in every direction in which life evolves, the propagation is in a straight line. But, as a matter of fact, there are species which are arrested; there are some that retrogress. Evolution is not only a movement forward; in many cases we observe a marking time, and still more often a deviation or turning back. It must be so, as we shall show further on, and the same causes that divide the evolution movement often cause life to be diverted from itself, hypnotized by the form it has just brought forth. Thence results an increasing disorder. No doubt there is progress, if progress means a continual advance in the general direction determined by a first impulsion; but this progress is accomplished only on the two or three great lines of evolution on which forms ever more and more complex, ever more and more high, appear; between these lines run a crowd of minor paths in which, on the

contrary, deviations, arrests, and set-backs, are multiplied. The philosopher, who begins by laying down as a principle that each detail is connected with some general plan of the whole, goes from one disappointment to another as soon as he comes to examine the facts; and, as he had put everything in the same rank, he finds that, as a result of not allowing for accident, he must regard everything as accidental. For accident, then, an allowance must first be made, and a very liberal allowance. We must recognize that all is not coherent in nature. By so doing, we shall be led to ascertain the centres around which the incoherence crystallizes. The crystallization itself will clarify the rest; the main directions will appear, in which life is moving whilst developing the original impulse. True, we shall not witness the detailed accomplishment of a plan. Nature is more and better than a plan in course of realization. A plan is a term assigned to a labor: it closes the future whose form it indicates. Before the evolution of life, on the contrary, the portals of the future remain wide open. It is a creation that goes on for ever in virtue of an initial movement. This movement constitutes the unity of the organized world — a prolific unity, of an infinite richness, superior to any that the intellect could dream of, for the intellect is only one of its aspects, or products.

But it is easier to define the method than to apply it. The complete interpretation of the evolution movement in the past, as we conceive it, would be possible only if the history of the development of the organized world were entirely known. Such is far from being the case. The genealogies proposed for the different species are generally questionable. They vary with their authors, with the theoretic views inspiring them, and raise discussions to which the present state of science does not admit of a final settlement. But a comparsion of the different solutions shows that the controversy bears less on the main lines of the movement than on matters of detail; and so, by following the main lines as closely as possible, we shall be sure of not going astray. Moreover, they alone are important to us; for we do not aim, like the naturalist, at finding the order of

succession of different species, but only at defining the principal directions of their evolution. And not all of these directions have the same interest for us: what concerns us particularly is the path that leads to man. We shall therefore not lose sight of the fact, in following in one direction and another, that our main business is to determine the relation of man to the animal kingdom, and the place of the animal kingdom itself in the organized world as a whole.

CHAPTER III. THE MEANING OF EVOLUTION

ALL our analyses show us, in life, an effort to remount the incline that matter descends. In that, they reveal to us the possibility, the necessity even of a process the inverse of materiality, creative of matter by its interruption alone. The life that evolves on the surface of our planet is indeed attached to matter. If it were pure consciousness, *a fortiori* if it were supraconsciousness, it would be pure creative activity. In fact, it is riveted to an organism that subjects it to the general laws of inert matter. But everything happens as if it were doing its utmost to set itself free from these laws. It has not the power to reverse the direction of physical changes, such as the principle of Carnot determines it. It does, however, behave absolutely as a force would behave which, left to itself, would work in the inverse direction. Incapable of *stopping* the course of material changes downwards, it succeeds in *retarding* it. The evolution of life really continues, as we have shown, an initial impulsion: this impulsion, which has determined the development of the chlorophyllian function in the plant and of the sensori-motor system in the animal, brings life to more and more efficient acts by the fabrication and use of more and more powerful explosives. Now, what do these explosives represent if not a storing-up of the solar energy, the degradation of which energy is thus provisionally suspended on some of the points where it was being poured forth? The usable energy which the explosive conceals will be expended, of course, at the moment of the explosion; but it would have been expended sooner if an

organism had not happened to be there to arrest its dissipation, in order to retain and save it up. As we see it to-day, at the point to which it was brought by a scission of the mutually complementary tendencies which it contained within itself, life is entirely dependent on the chlorophyllian function of the plant. This means that, looked at in its initial impulsion, before any scission, life was a tendency to accumulate in a reservoir, as do especially the green parts of vegetables, with a view to an instantaneous effective discharge, like that which an animal brings about, something that would have otherwise flowed away. It is like an effort to raise the weight which falls. True, it succeeds only in retarding the fall. But at least it can give us an idea of what the raising of the weight was.[1]

Let us imagine a vessel full of steam at a high pressure, and here and there in its sides a crack through which the steam is escaping in a jet. The steam thrown into the air is nearly all condensed into little drops which fall back, and this condensation and this fall represent simply the loss of something, an interruption, a deficit. But a small part of the jet of steam subsists, uncondensed, for some seconds; it is making an effort to raise the drops which are falling; it succeeds at most in retarding their fall. So, from an immense reservoir of life, jets must be gushing out unceasingly, of which each, falling back, is a world. The evolution of living species within this world represents what subsists of the primitive direction of the original jet, and of an impulsion which continues itself in a direction the

[1] In a book rich in facts and in ideas (La Dissolution opposée a l'évolution, Paris, 1899), M. André Lalande shows us everything going toward death, in spite of the momentary resistance which organisms seem to oppose. — But even from the side of unorganized matter, have we the right to extend to the entire universe considerations drawn from the present state of our solar system? Beside the worlds which are dying, there are without doubt worlds that are being born. On the other hand, in the organized world, the death of individuals does not seem at all like a diminution of "life in general," or like a necessity which life submits to reluctantly. As has been more than once remarked, life has never made an effort to prolong indefinitely the existence of the individual, although on so many other points it has made so many successful efforts. Everything is *as if* this death had been willed, or at least accepted, for the greater progress of life in general.

inverse of materiality. But let us not carry too far this comparison. It gives us but a feeble and even deceptive image of reality, for the crack, the jet of steam, the forming of the drops, are determined necessarily, whereas the creation of a world is a free act, and the life within the material world participates in this liberty. Let us think rather of an action like that of raising the arm; then let us suppose that the arm, left to itself, falls back, and yet there subsists in it, striving to raise it up again, something of the will that animates it. In this image of a *creative action which unmakes itself* we have already a more exact representation of matter. In vital activity we see, then, that which subsists of the direct movement in the inverted movement, *a reality which is making itself in a reality which is unmaking itself.*

Everything is obscure in the idea of creation if we think of *things* which are created and a *thing* which creates, as we habitually do, as the understanding cannot help doing. We shall show the origin of this illusion in our next chapter. It is natural to our intellect, whose function is essentially practical, made to present to us things and states rather than changes and acts. But things and states are only views, taken by our mind, of becoming. There are no things, there are only actions. More particularly, if I consider the world in which we live, I find that the automatic and strictly determined evolution of this well-knit whole is action which is unmaking itself, and that the unforeseen forms which life cuts out in it, forms capable of being themselves prolonged into unforeseen movements, represent the action that is making itself. Now, I have every reason to believe that the other worlds are analogous to ours, that things happen there in the same way. And I know that they were not all constructed at the same time, since observation shows me, even to-day, nebulæ in course of concentration. Now, if the same kind of action is going on everywhere, whether it is that which is unmaking itself or whether it is that which is striving to remake itself, I simply express this probable similitude when I speak of a centre from which worlds

shoot out like rockets in a fire-works display — provided, however, that I do not present this centre as a *thing*, but as a continuity of shooting out. God thus defined, has nothing of the already made; He is unceasing life, action, freedom. Creation, so conceived, is not a mystery; we experience it in ourselves when we act freely. That new things can join things already existing is absurd, no doubt, since the *thing* results from a solidification performed by our understanding, and there are never any things other than those that the understanding has thus constituted. To speak of things creating themselves would therefore amount to saying that the understanding presents to itself more than it presents to itself — a self-contradictory affirmation, an empty and vain idea. But that action increases as it goes on, that it creates in the measure of its advance, is what each of us finds when he watches himself act. Things are constituted by the instantaneous cut which the understanding practices, at a given moment, on a flux of this kind, and what is mysterious when we compare the cuts together becomes clear when we relate them to the flux. Indeed, the modalities of creative action, in so far as it is still going on in the organization of living forms, are much simplified when they are taken in this way. Before the complexity of an organism and the practically infinite multitude of interwoven analyses and syntheses it presupposes, our understanding recoils disconcerted. That the simple play of physical and chemical forces, left to themselves, should have worked this marvel, we find hard to believe. And if it is a profound science which is at work, how are we to understand the influence exercised on this matter without form by this form without matter? But the difficulty arises from this, that we represent statically ready-made material particles juxtaposed to one another, and, also statically, an external cause which plasters upon them a skilfully contrived organization. In reality, life is a movement, materiality is the inverse movement, and each of these two movements is simple, the matter which forms a world being an undivided flux, and undivided also the life that runs through it, cutting out in it living beings all along its track. Of these two

currents, the second runs counter to the first, but the first obtains, all the same, something from the second. There results between them a *modus vivendi*, which is organization. This organization takes, for our senses and for our intellect, the form of parts entirely external to other parts in space and in time. Not only do we shut our eyes to the unity of the impulse which, passing through generations, links individuals with individuals, species with species, and makes of the whole series of the living one single immense wave flowing over matter, but each individual itself seems to us as an aggregate, aggregate of molecules and aggregate of facts. The reason of this lies in the structure of our intellect, which is formed to act on matter from without, and which succeeds by making, in the flux of the real, instantaneous cuts, each of which becomes, in its fixity, endlessly decomposable. Perceiving, in an organism, only parts external to parts, the understanding has the choice between two systems of explanation only: either to regard the infinitely complex (and thereby infinitely well-contrived) organization as a fortuitous concatenation of atoms, or to relate it to the incomprehensible influence of an external force that has grouped its elements together. But this complexity is the work of the understanding; this incomprehensibility is also its work. Let us try to see, no longer with the eyes of the intellect alone, which grasps only the already made and which looks from the outside, but with the spirit, I mean with that faculty of seeing which is immanent in the faculty of acting and which springs up, somehow, by the twisting of the will on itself, when action is turned into knowledge, like heat, so to say, into light. To movement, then, everything will be restored, and into movement everything will be resolved. Where the understanding, working on the image supposed to be fixed of the progressing action, shows us parts infinitely manifold and an order infinitely well contrived, we catch a glimpse of a simple process, an action which is making itself across an action of the same kind which is unmaking itself, like the fiery path torn by the last rocket of a fire-works display through the black cinders of the spent rockets that are falling dead.

From this point of view, the general considerations we have presented concerning the evolution of life will be cleared up and completed. We will distinguish more sharply what is accidental from what is essential in this evolution.

The impetus of life, of which we are speaking, consists in a need of creation. It cannot create absolutely, because it is confronted with matter, that is to say with the movement that is the inverse of its own. But it seizes upon this matter, which is necessity itself, and strives to introduce into it the largest possible amount of indetermination and liberty. How does it go to work?

An animal high in the scale may be represented in a general way, we said, as a sensori-motor nervous system imposed on digestive, respiratory, circulatory systems, etc. The function of these latter is to cleanse, repair and protect the nervous system, to make it as independent as possible of external circumstances, but, above all, to furnish it with energy to be expended in movements. The increasing complexity of the organism is therefore due theoretically (in spite of innumerable exceptions due to accidents of evolution) to the necessity of complexity in the nervous system. No doubt, each complication of any part of the organism involves many others in addition, because this part itself must live, and every change in one point of the body reverberates, as it were, throughout. The complications may therefore go on to infinity in all directions; but it is the complication of the nervous system which conditions the others in right, if not always in fact. Now, in what does the progress of the nervous system itself consist? In a simultaneous development of automatic activity and of voluntary activity, the first furnishing the second with an appropriate instrument. Thus, in an organism such as ours, a considerable number of motor mechanisms are set up in the medulla and in the spinal cord, awaiting only a signal to release the corresponding act: the will is employed, in some cases, in setting up the mechanism itself, and in the others in choosing the mechanisms to be released, the manner of combining them and the moment of releasing them. The will of an animal is the

more effective and the more intense, the greater the number of the mechanisms it can choose from, the more complicated the switchboard on which all the motor paths cross, or, in other words, the more developed its brain. Thus, the progress of the nervous system assures to the act increasing precision, increasing variety, increasing efficiency and independence. The organism behaves more and more like a machine for action, which reconstructs itself entirely for every new act, as if it were made of india-rubber and could, at any moment, change the shape of all its parts. But, prior to the nervous system, prior even to the organism properly so called, already in the undifferentiated mass of the amœba, this essential property of animal life is found. The amœba deforms itself in varying directions; its entire mass does what the differentiation of parts will localize in a sensori-motor system in the developed animal. Doing it only in a rudimentary manner, it is dispensed from the complexity of the higher organisms; there is no need here of the auxiliary elements that pass on to motor elements the energy to expend; the animal moves as a whole; and, as a whole also, procures energy by means of the organic substances it assimilates. Thus, whether low or high in the animal scale, we always find that animal life consists (1) in procuring a provision of energy; (2) in expending it, by means of a matter as supple as possible, in directions variable and unforeseen.

Now, whence comes the energy? From the ingested food, for food is a kind of explosive, which needs only the spark to discharge the energy it stores. Who has made this explosive? The food may be the flesh of an animal nourished on animals and so on; but, in the end it is to the vegetable we always come back. Vegetables alone gather in the solar energy, and the animals do but borrow it from them, either directly or by some passing it on to others. How then has the plant stored up this energy? Chiefly by the chlorophyllian function, a chemicism *sui generis* of which we do not possess the key, and which is probably unlike that of our laboratories. The process consists in using solar energy to fix the carbon of carbonic acid, and thereby to store this energy as we should store that of a water-

carrier by employing him to fill an elevated reservoir: the water, once brought up, can set in motion a mill or a turbine, as we will and when we will. Each atom of carbon fixed represents something like the elevation of the weight of water, or like the stretching of an elastic thread uniting the carbon to the oxygen in the carbonic acid. The elastic is relaxed, the weight falls back again, in short the energy held in reserve is restored, when, by a simple release, the carbon is permitted to rejoin its oxygen.

So that all life, animal and vegetable, seems in its essence like an effort to accumulate energy and then to let it flow into flexible channels, changeable in shape, at the end of which it will accomplish infinitely varied kinds of work. That is what the *vital impetus*, passing through matter, would fain do all at once. It would succeed, no doubt, if its power were unlimited, or if some reinforcement could come to it from without. But the impetus is finite, and it has been given once for all. It cannot overcome all obstacles. The movement it starts is sometimes turned aside, sometimes divided, always opposed; and the evolution of the organized world is the unrolling of this conflict. The first great scission that had to be effected was that of the two kingdoms, vegetable and animal, which thus happen to be mutually complementary, without, however, any agreement having been made between them. It is not for the animal that the plant accumulates energy. it is for its own consumption, but its expenditure on itself is less discontinuous, and less concentrated, and therefore less efficacious, than was required by the initial impetus of life, essentially directed toward free actions: the same organism could not with equal force sustain the two functions at once, of gradual storage and sudden use. Of themselves, therefore, and without any external intervention, simply by the effect of the duality of the tendency involved in the original impetus and of the resistance opposed by matter to this impetus, the organisms leaned some in the first direction, others in the second. To this scission there succeeded many others. Hence the diverging lines of evolution, at least what is essential in them. But we must take into account retro-

gressions, arrests, accidents of every kind. And we must remember, above all, that each species behaves as if the general movement of life stopped at it instead of passing through it. It thinks only of itself, it lives only for itself. Hence the numberless struggles that we behold in nature. Hence a discord, striking and terrible, but for which the original principle of life must not be held responsible.

The part played by contingency in evolution is therefore great. Contingent, generally, are the forms adopted, or rather invented. Contingent, relative to the obstacles encountered in a given place and at a given moment, is the dissociation of the primordial tendency into such and such complementary tendencies which create divergent lines of evolution. Contingent the arrests and set-backs; contingent, in large measure, the adaptations. Two things only are necessary: (1) a gradual accumulation of energy; (2) an elastic canalization of this energy in variable and indeterminable directions, at the end of which are free acts.

This twofold result has been obtained in a particular way on our planet. But it might have been obtained by entirely different means. It was not necessary that life should fix its choice mainly upon the carbon of carbonic acid. What was essential for it was to store solar energy; but, instead of asking the sun to separate, for instance, atoms of oxygen and carbon, it might (theoretically at least, and, apart from practical difficulties possibly insurmountable) have put forth other chemical elements, which would then have had to be associated or dissociated by entirely different physical means. And if the element characteristic of the substances that supply energy to the organism had been other than carbon, the element characteristic of the plastic substances would probably have been other than nitrogen, and the chemistry of living bodies would then have been radically different from what it is. The result would have been living forms without any analogy to those we know, whose anatomy would have been different, whose physiology also would have been different. Alone, the sensori-motor function would have been preserved, if not in its mechanism, at

least in its effects. It is therefore probable that life goes on in other planets, in other solar systems also, under forms of which we have no idea, in physical conditions to which it seems to us, from the point of view of our physiology, to be absolutely opposed. If its essential aim is to catch up usable energy in order to expend it in explosive actions, it probably chooses, in each solar system and on each planet, as it does on the earth, the fittest means to get this result in the circumstances with which it is confronted. That is at least what reasoning by analogy leads to, and we use analogy the wrong way when we declare life to be impossible wherever the circumstances with which it is confronted are other than those on the earth. The truth is that life is possible wherever energy descends the incline indicated by Carnot's law and where a cause of inverse direction can retard the descent — that is to say, probably, in all the worlds suspended from all the stars. We go further: it is not even necessary that life should be concentrated and determined in organisms properly so called, that is, in definite bodies presenting to the flow of energy ready-made though elastic canals. It can be conceived (although it can hardly be imagined) that energy might be saved up, and then expended on varying lines running across a matter not yet solidified. Every essential of life would still be there, since there would still be slow accumulation of energy and sudden release. There would hardly be more difference between this vitality, vague and formless, and the definite vitality we know, than there is, in our psychical life, between the state of dream and the state of waking. Such may have been the condition of life in our nebula before the condensation of matter was complete, if it be true that life springs forward at the very moment when, as the effect of an inverse movement, the nebular matter appears.

It is therefore conceivable that life might have assumed a totally different outward appearance and designed forms very different from those we know. With another chemical substratum, in other physical conditions, the impulsion would have remained the same, but it would have split up very differently in course of progress: and the whole would have traveled

another road — whether shorter or longer who can tell? In any case, in the entire series of living beings no term would have been what it now is. Now, was it necessary that there should be a series or terms? Why should not the unique impetus have been impressed on a unique body, which might have gone on evolving?

This question arises, no doubt, from the comparison of life to an impetus. And it must be compared to an impetus, because no image borrowed from the physical world can give more nearly the idea of it. But it is only an image. In reality, life is of the psychological order, and it is of the essence of the psychical to enfold a confused plurality of interpenetrating terms. In space, and in space only, is distinct multiplicity possible: a point is absolutely external to another point. But pure and empty unity, also, is met with only in space; it is that of a mathematical point. Abstract unity and abstract multiplicity are determinations of space or categories of the understanding, whichever we will, spatiality and intellectuality being molded on each other. But what is of psychical nature cannot entirely correspond with space, nor enter perfectly into the categories of the understanding. Is my own person, at a given moment, one or manifold? If I declare it one, inner voices arise and protest — those of the sensations, feelings, ideas, among which my individuality is distributed. But, if I make it distinctly manifold, my consciousness rebels quite as strongly; it affirms that my sensations, my feelings, my thoughts are abstractions which I effect on myself, and that each of my states implies all the others. I am then (we must adopt the language of the understanding, since only the understanding has a language) a unity that is multiple and a multiplicity that is one; [1] but unity and multiplicity are only views of my personality taken by an understanding that directs its categories at me; I enter neither into one nor into the other nor into both at once, although both, united, may give a fair imitation of the mutual interpenetration and continuity that I find at the base of my own self.

[1] We have dwelt on this point in an article entitled "Introduction à la métaphysique" (*Revue de métaphysique et de morale*, January, 1903, pp. 1–25).

Such is my inner life, and such also is life in general. While, in its contact with matter, life is comparable to an impulsion or an impetus, regarded in itself it is an immensity of potentiality, a mutual encroachment of thousands and thousands of tendencies which nevertheless are "thousands and thousands" only when once regarded as outside of each other, that is, when spatialized. Contact with matter is what determines this dissociation. Matter divides actually what was but potentially manifold; and, in this sense, individuation is in part the work of matter, in part the result of life's own inclination. Thus, a poetic sentiment, which bursts into distinct verses, lines and words, may be said to have already contained this multiplicity of individuated elements, and yet, in fact, it is the materiality of language that creates it.

But through the words, lines and verses runs the simple inspiration which is the whole poem. So, among the dissociated individuals, one life goes on moving: everywhere the tendency to individualize is opposed and at the same time completed by an antagonistic and complementary tendency to associate, as if the manifold unity of life, drawn in the direction of multiplicity, made so much the more effort to withdraw itself on to itself. A part is no sooner detached than it tends to reunite itself, if not to all the rest, at least to what is nearest to it. Hence, throughout the whole realm of life, a balancing between individuation and association. Individuals join together into a society; but the society, as soon as formed, tends to melt the associated individuals into a new organism, so as to become itself an individual, able in its turn to be part and parcel of a new association. At the lowest degree of the scale of organisms we already find veritable associations, microbial colonies, and in these associations, according to a recent work, a tendency to individuate by the constitution of a nucleus.[1] The same tendency is met with again at a higher stage, in the protophytes, which, once having quitted the parent cell by way of division, remain united to each other by the gelatinous substance that

[1] Cf. A paper written (in Russian) by Serkovski, and reviewed in the *Année biologique*, 1898, p. 317.

surrounds them — also in those protozoa which begin by mingling their pseudopodia and end by weld ng themselves together. The "colonial" theory of the genesis of higher organisms is well known. The protozoa, consisting of one single cell, are supposed to have formed, by assemblage, aggregates which, relating themselves together in their turn, have given rise to aggregates of aggregates; so organisms more and more complicated, and also more and more differentiated, are born of the association of organisms barely differentiated and elementary.[1] In this extreme form, the theory is open to grave objections: more and more the idea seems to be gaining ground, that polyzoism is an exceptional and abnormal fact.[2] But it is none the less true that things happen *as if* every higher organism was born of an association of cells that have subdivided the work between them. Very probably it is not the cells that have made the individual by means of association; it is rather the individual that has made the cells by means of dissociation.[3] But this itself reveals to us, in the genesis of the individual, a haunting of the social form, as if the individual could develop only on the condition that its substance should be split up into elements having themselves an appearance of individuality and united among themselves by an appearance of sociality. There are numerous cases in which nature seems to hesitate between the two forms, and ask herself if she shall make a society or an individual. The slightest push is enough, then, to make the balance weigh on one side or the other. If we take an infusorian sufficiently large, such as the Stentor, and cut it into two halves each containing a part of the nucleus, each of the two halves will generate an independent Stentor; but if we divide it incompletely, so that a protoplasmic communication is left between the two halves, we shall see them execute, each from its side, corresponding movements: so that in this case it is enough

[1] Ed. Perrier, *Les Colonies animales*, Paris, 1897 (2nd edition)

[2] Delage, L'Hérédité, 2nd edition, Paris, 1903, p. 97. Cf. by the same author, "La Conception polyzoïque des êtres" (*Revue scientifique*, 1896, pp. 641–653).

[3] This is the theory maintained by Kunstler, Delage, Sedgwick, Labbé, etc. Its development, with bibliographical references, will be found in the work of Busquet, *Les êtres vivants*, Paris, 1899.

that a thread should be maintained or cut in order that life should affect the social or the individual form. Thus, in rudimentary organisms consisting of a single cell, we already find that the apparent individuality of the whole is the composition of an *undefined* number of potential individualities potentially associated. But, from top to bottom of the series of living beings, the same law is manifested. And it is this that we express when we say that unity and multiplicity are categories of inert matter, that the vital impetus is neither pure unity nor pure multiplicity, and that if the matter to which it communicates itself compels it to choose one of the two, its choice will never be definitive: it will leap from one to the other indefinitely. The evolution of life in the double direction of individuality and association has therefore nothing accidental about it: it is due to the very nature of life.

Essential also is the progress to reflection. If our analysis is correct, it is consciousness, or rather supra-consciousness, that is at the origin of life. Consciousness, or supra-consciousness, is the name for the rocket whose extinguished fragments fall back as matter; consciousness, again, is the name for that which subsists of the rocket itself, passing through the fragments and lighting them up into organisms. But this consciousness, which is a *need of creation*, is made manifest to itself only where creation is possible. It lies dormant when life is condemned to automatism; it wakens as soon as the possibility of a choice is restored. That is why, in organisms unprovided with a nervous system, it varies according to the power of locomotion and of deformation of which the organism disposes. And in animals with a nervous system, it is proportional to the complexity of the switchboard on which the paths called sensory and the paths called motor intersect — that is, of the brain. How must this solidarity between the organism and consciousness be understood?

We will not dwell here on a point that we have dealt with in former works. Let us merely recall that a theory such as that according to which consciousness is attached to certain neurons, and is thrown off from their work like a phosphorescence,

may be accepted by the scientist for the detail of analysis; it is a convenient mode of expression. But it is nothing else. In reality, a living being is a centre of action. It represents a certain sum of contingency entering into the world, that is to say, a certain quantity of possible action — a quantity variable with individuals and especially with species. The nervous system of an animal marks out the flexible lines on which its action will run (although the potential energy is accumulated in the muscles rather than in the nervous system itself); its nervous centres indicate, by their development and their configuration, the more or less extended choice it will have among more or less numerous and complicated actions. Now, since the awakening of consciousness in a living creature is the more complete, the greater the latitude of choice allowed to it and the larger the amount of action bestowed upon it, it is clear that the development of consciousness will appear to be dependent on that of the nervous centres. On the other hand, every state of consciousness being, in one aspect of it, a question put to the motor activity and even the beginning of a reply, there is no psychical event that does not imply the entry into play of the cortical mechanisms. Everything seems, therefore, to happen *as if* consciousness sprang from the brain, and *as if* the detail of conscious activity were modeled on that of the cerebral activity. In reality, consciousness does not spring from the brain; but brain and consciousness correspond because equally they measure, the one by the complexity of its structure and the other by the intensity of its awareness, the quantity of *choice* that the living being has at its disposal.

It is precisely because a cerebral state expresses simply what there is of nascent action in the corresponding psychical state, that the psychical state tells us more than the cerebral state. The consciousness of a living being, as we have tried to prove elsewhere, is inseparable from its brain in the sense in which a sharp knife is inseparable from its edge: the brain is the sharp edge by which consciousness cuts into the compact tissue of events, but the brain is no more coextensive with consciousness than the edge is with the knife. Thus, from the fact that two

brains, like that of the ape and that of the man, are very much alike, we cannot conclude that the corresponding consciousness are comparable or commensurable.

But the two brains may perhaps be less alike than we suppose. How can we help being struck by the fact that, while man is capable of learning any sort of exercise, of constructing any sort of object, in short, of acquiring any kind of motor habit whatsoever, the faculty of combining new movements is strictly limited in the best-endowed animal, even in the ape? The cerebral characteristic of man is there. The human brain is made, like every brain, to set up motor mechanisms and to enable us to choose among them, at any instant, the one we shall put in motion by the pull of a trigger. But it differs from other brains in this, that the number of mechanisms it can set up, and consequently the choice that it gives as to which among them shall be released, is unlimited. Now, from the limited to the unlimited there is all the distance between the closed and the open. It is not a difference of degree, but of kind.

Radical therefore, also, is the difference between animal consciousness, even the most intelligent, and human consciousness. For consciousness corresponds exactly to the living being's power of choice; it is coextensive with the fringe of possible action that surrounds the real action: consciousness is synonymous with invention and with freedom. Now, in the animal, invention is never anything but a variation on the theme of routine. Shut up in the habits of the species, it succeeds, no doubt, in enlarging them by its individual initiative; but it escapes automatism only for an instant, for just the time to create a new automatism. The gates of its prison close as soon as they are opened; by pulling at its chain it succeeds only in stretching it. With man, consciousness breaks the chain. In man, and in man alone, it sets itself free. The whole history of life until man has been that of the effort of consciousness to raise matter, and of the more or less complete overwhelming of consciousness by the matter which has fallen back on it. The enterprise was paradoxical, if, indeed, we may speak here otherwise than by metaphor of enterprise and of effort. It

was to create with matter, which is necessity itself, an instrument of freedom, to make a machine which should triumph over mechanism, and to use the determinism of nature to pass through the meshes of the net which this very determinism had spread. But, everywhere except in man, consciousness has let itself be caught in the net whose meshes it tried to pass through: it has remained the captive of the mechanisms it has set up. Automatism, which it tries to draw in the direction of freedom, winds about it and drags it down. It has not the power to escape, because the energy it has provided for acts is almost all employed in maintaining the infinitely subtle and essentially unstable equilibrium into which it has brought matter. But man not only maintains his machine, he succeeds in using it as he pleases. Doubtless he owes this to the superiority of his brain, which enables him to build an unlimited number of motor mechanisms, to oppose new habits to the old ones unceasingly, and by dividing automatism against itself, to rule it. He owes it to his language, which furnishes consciousness with an immaterial body in which to incarnate itself and thus exempts itself from dwelling exclusively on material bodies, whose flux would soon drag it along and finally swallow it up. He owes it to social life, which stores and preserves efforts as language stores thought, fixes thereby a mean level to which individuals must raise themselves at the outset, and by this initial stimulation prevents the average man from slumbering and drives the superior man to mount still higher. But our brain, our society, and our language are only the external and various signs of one and the same internal superiority. They tell, each after its manner, the unique exceptional success which life has won at a given moment of its evolution. They express the difference of kind, and not only of degree, which separates man from the rest of the animal world. They let us guess that, while at the end of the vast spring-board from which life has taken its leap, all the others have stepped down, finding the cord stretched too high, man alone has cleared the obstacle.

It is in this quite special sense that man is the "term" and the "end" of evolution. Life, we have said, transcends finality

as it transcends the other categories. It is essentially a current sent through matter, drawing from it what it can. There has not, therefore, properly speaking, been any project or plan. On the other hand, it is abundantly evident that the rest of nature is not for the sake of man: we struggle like other species, we have struggled against other species. Moreover, if the evolution of life had encountered other accidents in its course, if thereby, the current of life had been otherwise divided, we should have been, physically and morally, far different from what we are. For these various reasons it would be wrong to regard humanity, such as we have it before our eyes, as prefigured in the evolutionary movement. It cannot even be said to be the outcome of the whole of evolution, for evolution has been accomplished on several divergent lines, and while the human species is at the end of one of them, other lines have been followed with other species at their end. It is in quite a different sense that we hold humanity to be the ground of evolution.

From our point of view, life appears in its entirety as an immense wave which, starting from a centre, spreads outwards, and which on almost the whole of its circumference is stopped and converted into oscillation: at one single point the obstacle has been forced, the impulsion has passed freely. It is this freedom that the human form registers. Everywhere but in man, consciousness has had to come to a stand; in man alone it has kept on its way. Man, then, continues the vital movement indefinitely, although he does not draw along with him all that life carries in itself. On other lines of evolution there have traveled other tendencies which life implied, and of which, since everything interpenetrates, man has, doubtless, kept something, but of which he has kept only very little. *It is as if a vague and formless being, whom we may call, as we will,* man *or* superman, *had sought to realize himself, and had succeeded only by abandoning a part of himself on the way.* The losses are represented by the rest of the animal world, and even by the vegetable world, at least in what these have that is positive and above the accidents of evolution.

From this point of view, the discordances of which nature offers us the spectacle are singularly weakened. The organized world as a whole becomes as the soil on which was to grow either man himself or a being who morally must resemble him. The animals, however distant they may be from our species, however hostile to it, have none the less been useful traveling companions, on whom consciousness has unloaded whatever encumbrances it was dragging along, and who have enabled it to rise, in man, to heights from which it sees an unlimited horizon open again before it.

It is true that it has not only abandoned cumbersome baggage on the way; it has also had to give up valuable goods. Consciousness, in man is pre-eminently intellect. It might have been, it ought, so it seems, to have been also intuition. Intuition and intellect represent two opposite directions of the work of consciousness: intuition goes in the very direction of life, intellect goes in the inverse direction, and thus finds itself naturally in accordance with the movement of matter. A complete and perfect humanity would be that in which these two forms of conscious activity should attain their full development. And, between this humanity and ours, we may conceive any number of possible stages, corresponding to all the degrees imaginable of intelligence and of intuition. In this lies the part of contingency in the mental structure of our species. A different evolution might have led to a humanity either more intellectual still or more intuitive. In the humanity of which we are a part, intuition is, in fact, almost completely sacrificed to intellect. It seems that to conquer matter, and to reconquer its own self, consciousness has had to exhaust the best part of its power. This conquest, in the particular conditions in which it has been accomplished, has required that consciousness should adapt itself to the habits of matter and concentrate all its attention on them, in fact determine itself more especially as intellect. Intuition is there, however, but vague and above all discontinuous. It is a lamp almost extinguished, which only glimmers now and then, for a few moments at most. But it glimmers wherever a vital interest is at stake. On our person-

ality, on our liberty, on the place we occupy in the whole of nature, on our origin and perhaps also on our destiny, it throws a light feeble and vacillating, but which none the less pierces the darkness of the night in which the intellect leaves us.

These fleeting intuitions, which light up their object only at distant intervals, philosophy ought to seize, first to sustain them, then to expand them and so unite them together. The more it advances in this work, the more will it perceive that intuition is mind itself, and, in a certain sense, life itself: the intellect has been cut out of it by a process resembling that which has generated matter. Thus is revealed the unity of the spiritual life. We recognize it only when we place ourselves in intuition in order to go from intuition to the intellect, for from the intellect we shall never pass to intuition.

Philosophy introduces us thus into the spiritual life. And it shows us at the same time the relation of the life of the spirit to that of the body. The great error of the doctrines on the spirit has been the idea that by isolating the spiritual life from all the rest, by suspending it in space as high as possible above the earth, they were placing it beyond attack, as if they were not thereby simply exposing it to be taken as an effect of mirage! Certainly they are right to listen to conscience when conscience affirms human freedom; but the intellect is there, which says that the cause determines its effect, that like conditions like, that all is repeated and that all is given. They are right to believe in the absolute reality of the person and in his independence toward matter; but science is there, which shows the interdependence of conscious life and cerebral activity. They are right to attribute to man a privileged place in nature, to hold that the distance is infinite between the animal and the man; but the history of life is there, which makes us witness the genesis of species by gradual transformation, and seems thus to reintegrate man in animality. When a strong instinct assures the probability of personal survival, they are right not to close their ears to its voice; but if there exist "souls" capable of an independent life, whence do they come? When, how and why do they enter into this body which we see arise, quite naturally,

from a mixed cell derived from the bodies of its two parents? All these questions will remain unanswered, a philosophy of intuition will be a negation of science, will be sooner or later swept away by science, if it does not resolve to see the life of the body just where it really is, on the road that leads to the life of the spirit. But it will then no longer have to do with definite living beings. Life as a whole, from the initial impulsion that thrust it into the world, will appear as a wave which rises, and which is opposed by the descending movement of matter. On the greater part of its surface, at different heights, the current is converted by matter into a vortex. At one point alone it passes freely, dragging with it the obstacle which will weigh on its progress but will not stop it. At this point is humanity; it is our privileged situation. On the other hand, this rising wave is consciousness, and, like all consciousness, it includes potentialities without number which interpenetrate and to which consequently neither the category of unity nor that of multiplicity is appropriate, made as they both are for inert matter. The matter that it bears along with it, and in the interstices of which it inserts itself, alone can divide it into distinct individualities. On flows the current, running through human generations, subdividing itself into individuals. This subdivision was vaguely indicated in it, but could not have been made clear without matter. Thus souls are continually being created, which, nevertheless in a certain sense pre-existed. They are nothing else than the little rills into which the great river of life divides itself, flowing through the body of humanity. The movement of the stream is distinct from the river bed, although it must adopt its winding course. Consciousness is distinct from the organism it animates, although it must undergo its vicissitudes. As the possible actions which a state of consciousness indicates are at every instant beginning to be carried out in the nervous centres, the brain underlies at every instant the motor indications of the state of consciousness; but the interdependency of consciousness and brain is limited to this; the destiny of consciousness is not bound up on that account with the destiny of cerebral matter. Finally, consciousness is

essentially free; it is freedom itself; but it cannot pass through matter without settling on it, without adapting itself to it: this adaptation is what we call intellectuality; and the intellect, turning itself back toward active, that is to say free, consciousness, naturally makes it enter into the conceptual forms into which it is accustomed to see matter fit. It will therefore always perceive freedom in the form of necessity; it will always neglect the part of novelty or of creation inherent in the free act; it will always substitute for action itself an imitation artificial, approximative, obtained by compounding the old with the old and the same with the same. Thus, to the eyes of a philosophy that attempts to reabsorb intellect in intuition, many difficulties vanish or become light. But such a doctrine does not only facilitate speculation; it gives us also more power to act and to live. For, with it, we feel ourselves no longer isolated in humanity, humanity no longer seems isolated in the nature that it dominates. As the smallest grain of dust is bound up with our entire solar system, drawn along with it in that undivided movement of descent which is materiality itself, so all organized beings, from the humblest to the highest, from the first origins of life to the time in which we are, and in all places as in all times, do but evidence a single impulsion, the inverse of the movement of matter, and in itself indivisible. All the living hold together, and all yield to the same tremendous push. The animal takes its stand on the plant, man bestrides animality, and the whole of humanity, in space and in time, is one immense army galloping beside and before and behind each of us in an overwhelming charge able to beat down every resistance and clear the most formidable obstacles, perhaps even death.

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